Final Submittal

(Blue Paper)

FINAL JPMS

1. ADMINISTRATIVE JPMs
2. IN-PLANT JPMs
3. SIMULATOR JPMs (CONTROL ROOM)

TURKEY POINT JULY/AUGUST 2005 EXAM

50-250/2005-301 AND 50-251/2005-301

JULY 18 - 22, 2005 & AUGUST 1 - 5, 2005
JULY 15, 2005 (WRITTEN)

2/9/06

Facility:	Turkey Point	Task No:	
Task Title:	Calculate Number of Gallons of Primary Water Required to Raise Power from 5% to 30%.	Job Performance Measure No:	Conduct of Ops 1
K/A Reference:	004A4.04		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Classroom

Simulated Performance ______ Actual Performance Yes

Classroom Yes Simulator ______ Plant ______

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. Unit 3 Cycle: 21
2. Reactor Power: 5%
3. Rod Height: D-110
4. Boron Concentration: 700 ppm
5. Core Burnup: 10,000 MWD/MTU

Desired Conditions after Power Increase:

1. Reactor Power: 30%
2. Rod Height: D-150

Task Standard:

1. Calculate Number of Gallons of Primary Water Required to Raise Power from 5% to 30%. Final value must fall between 3065 gallons and 3530 gallons.

Required Materials:

1. Plant Curve Book
2. 0-OP-046, CVCS – BORON CONCENTRATION CONTROL, ATTACHMENT 5 – REACTIVITY WORKSHEET

General References:

1. 3-GOP-305, HOT STANDBY TO COLD SHUTDOWN
2. Plant Curve Book
3. 0-OP-046, CVCS – BORON CONCENTRATION CONTROL

Initiating Cue:
You have been directed to calculate the number of gallons of primary water required to raise reactor power from 5% to 30% using 0-OP-046, CVCS – BORON CONCENTRATION CONTROL, ATTACHMENT 5 – REACTIVITY WORKSHEET.

Time Critical Task: No

Validation Time: 20 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:

WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:

1. Unit 3 Cycle: 21
2. Reactor Power: 5%
3. Rod Height: D-110
4. Boron Concentration: 700 ppm
5. Core Burnup: 10,000 MWD/MTU

Desired Conditions after Power Increase:

1. Reactor Power: 30%
2. Rod Height: D-150

INITIATING CUE:

You have been directed to calculate the number of gallons of primary water required to raise reactor power from 5% to 30% using 0-OP-046, CVCS – BORON CONCENTRATION CONTROL, ATTACHMENT 5 – REACTIVITY WORKSHEET.

TERMINATION CUE:

WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Identifies and obtains materials and procedures necessary to perform task.	___ SAT ___ UNSAT
STANDARD:	Operator obtains copy of 0-OP-046, Attachment 5 and Plant Curve Book **CUE: Provide a copy of 0-OP-046, Attachment 5 and the Plant Curve Book.**	

STEP 2 : √	Operator enters appropriate values for Rod Worth and performs computation.	___ SAT ___ UNSAT
STANDARD:	Determines 5% value (D-110) between 631 and 624 pcm. Determines 30% value (D-150) between 475 and 432 pcm. Appropriate values entered and answer of 156 –199 pcm obtained.	

STEP 3 : √	Operator enters appropriate values for Power Defect and performs computation.	___ SAT ___ UNSAT
STANDARD:	Determines 5% value (700 ppm) equal to 120 pcm. Determines 30% value (700 ppm) equal to 687 pcm. Appropriate values entered and answer of 567 pcm obtained.	

STEP 4 : √	Operator calculates the desired change.	___ SAT ___ UNSAT
STANDARD:	Determines value based on rod worth at 156 pcm vs power defect at 567 pcm OR determines value based on rod worth at 199 pcm vs power defect at 567 pcm. Operator enters the appropriate values from the previous two computations to derive an answer of 411 to 368 pcm.	

STEP 5 : √	1. Operator determines present boron worth from Plant Curve Book, Section 2, Figure 7A.	____ SAT ____ UNSAT
STANDARD:	Operator correctly determines present boron worth from Plant Curve Book, Section 2, Figure 7A as 6464 pcm.	

STEP 6 : √	1. Operator calculates desired boron worth and concentration.	____ SAT ____ UNSAT
STANDARD:	Determines value based on combined rod worth/power defect at 411 pcm OR determines value based on combined rod worth/power defect at 368 pcm. Operator correctly calculates (by interpolating figure 7A) desired boron concentration. 6053 pcm (653 ppm) to 6096 (659 ppm)	

STEP 7 :	1. Operator determines if boration or dilution is required.	____ SAT ____ UNSAT
STANDARD:	1. Operator determines that dilution is required.	

STEP 8 : √	1. Operator determines number of gallons required.	____ SAT ____ UNSAT
STANDARD:	Determines value based on boron concentration of 653 ppm to boron concentration of 659 ppm. Operator determines number of gallons of primary water required as 3530 gallons to 3065 gallons.	

STEP 9 :	**STOP**	___ SAT ___ UNSAT
STANDARD:	Applicant turns in all materials.	

Stop Time ________

Verification of Completion

Job Performance Measure No. Conduct of Ops 1

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ______________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. Unit 3 Cycle: 21
2. Reactor Power: 5%
3. Rod Height: D-110
4. Boron Concentration: 700 ppm
5. Core Burnup: 10,000 MWD/MTU

Desired Conditions after Power Reduction:

1. Reactor Power: 30%
2. Rod Height: D-150

INITIATING CUE:

You have been directed to calculate the number of gallons of primary water required to raise reactor power from 5% to 30% using 0-OP-046, CVCS – BORON CONCENTRATION CONTROL, ATTACHMENT 5 – REACTIVITY WORKSHEET.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

ECO FORM

TAG HANG LIST FOR ECO

Equipment ID	Equipment Description	Equipment Location	Tag Serial Number	Tag Type	Place Seq	Place Config	1st	2nd	Notes

ECO FORM

TAG HANG LIST FOR ECO

Equipment ID	Equipment Description	Equipment Location	Tag Serial Number	Tag Type	Place Seq	Place Config	1st	2nd	Notes	Critical
3P201C Control Switch	3C CHG PP CNTRL SW	UNIT CONTROL ROOM CONSOLE		INFO TAG					HANG INFO TAG	
35008	480V BKR (LC 3H) TO CHG PMP 3C	NEW ELECTRICAL EQUIPMENT ROOM	1	DANGER					RACK BREAKER OUT	√
3-290	CHG PMP 3C DISCH ISO VLV	CHARGING PUMP ROOM	2	DANGER					CLOSE	√
3-291A	CHG PMP 3C DISCH TO SEAL WTR INJ ISO VLV	CHARGING PUMP ROOM	3	DANGER					CLOSE	√
3-1317	CHG PMP 3C RECIRC ISOL VLV	CHARGING PUMP ROOM	4	DANGER					CLOSE	√
3-275C	CHG PMP 3C RELIEF LINE ISO VLV	CHARGING PUMP ROOM	5	DANGER					LOCK CLOSE	√
3-270	CHG PMP 3C INLET ISO VLV	CHARGING PUMP ROOM	6	DANGER					CLOSE	√
3-1314 *	CHG PMP C SUCT STABLIZER VENT ISO VLV	CHARGING PUMP ROOM	7	DANGER					OPEN	
3-3411C *	CHARGING PUMP C SUCTION STABILIZER VENT	CHARGING PUMP ROOM	8	DANGER					OPEN	
3-276C **	CHG PMP C DISCH PI-153 ROOT VLV	CHARGING PUMP ROOM	9	DANGER					OPEN	
3-276F **	CHG PMP C DISCH LINE VENT VALVE	CHARGING PUMP ROOM	10	DANGER					OPEN	
3-270B ***	CHG PMP C SUCT STABLIZER DRAIN VALVE	CHARGING PUMP ROOM	11	DANGER					OPEN	√

*** At least one vent path (*,**) and one drain path (***) must be properly identified. Any vent or drain path is allowable and is critical.**

Facility:	Turkey Point	Task No:	
Task Title:	Perform A QPTR Calculation	Job Performance Measure No:	Conduct of Ops 2
K/A Reference:	015A1.04		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Classroom

Simulated Performance Yes Actual Performance ____

Classroom Yes Simulator ____ Plant ____

Read to the examinee:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
The plant is operating at 100% power.

Detector currents for all in service power range nuclear instrumentation channels are as follows:

N-41 Top:	179.8	N-41 Bottom:	153.0
N-42 Top:	142.0	N-42 Bottom:	142.2
N-43 Top:	151.3	N-43 Bottom:	127.1
N-44 Top:	183.1	N-44 Bottom:	160.6

Task Standard:
Calculate QPTR value and identify as exceeding Technical Specifications (> 1.02) per 3-OSP-059.10.

SROs: Apply Tech Spec 3.2.4 and recommend to the Shift Manager QPTR be calculated at least once per hour and reduce power within 2 hours 3% from RTP for each 1% of QPTR in excess of 1 and reduce high flux trip setpoints in a similar manner.

Required Materials:
1. Calculator
2. 3-OSP-059.10, DETERMINATION OF QUADRANT POWER TILT RATIO
3. Plant Curve Book
4. Technical Specifications Section 3.2.4

General References:
1. 3-OSP-059.10, DETERMINATION OF QUADRANT POWER TILT RATIO
2. Plant Curve Book
3. Technical Specifications Section 3.2.4

Initiating Cue:

The Shift Manager has directed you to determine NIS QPTR using excore detector currents and identify if QPTR is within Tech Spec limits.

SROs: If calculated QPTR is determined to exceed Tech Spec Limits, apply the applicable Tech Spec and recommend to the Shift Manager all required Tech Spec actions .

Time Critical Task: No

Validation Time: ROs: 15 minutes
SROs: 20 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
The plant is operating at 100% power.

Detector currents for all in service power range nuclear instrumentation channels are as follows:

N-41 Top:	179.8	N-41 Bottom:	153.0
N-42 Top:	142.0	N-42 Bottom:	142.2
N-43 Top:	151.3	N-43 Bottom:	127.1
N-44 Top:	183.1	N-44 Bottom:	160.6

INITIATING CUE:
The Shift Manager has directed you to determine NIS QPTR using excore detector currents and identify if QPTR is within Tech Spec limits.

SROs: If calculated QPTR is determined to exceed Tech Spec Limits, apply the applicable Tech Spec and recommend to the Shift Manager all required Tech Spec actions .

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Obtain copy of procedure.	___ SAT ___ UNSAT
STANDARD:	Obtains copy of 3-OSP-059.10. **CUE: Give applicant a copy of procedure.**	

STEP 2 :	Record date, time and initials on page 1 of Attachment 1.	___ SAT ___ UNSAT
STANDARD:	Records date and time and initials.	

STEP 2 : √	7.1.1 Read and record the top and bottom detector current for all in service power range nuclear instrumentation channels (meter face).	___ SAT ___ UNSAT
STANDARD:	1. Records detector currents for all in service power range nuclear instrumentation channels: N-41 Top: 179.8 N-41 Bottom: 153.0 N-42 Top: 142.0 N-42 Bottom: 142.2 N-43 Top: 151.3 N-43 Bottom: 127.1 N-44 Top: 183.1 N-44 Bottom: 160.6	

STEP 3 : √	7.1.2 Record the 100% power current values for each in service power range nuclear instrumentation detector. 7.1.3 Refer to plant curve book [Section 5, Figure 5] for the 100% power current values.	____ SAT ____ UNSAT
STANDARD:	1. Obtains values from plant curve book and records them in appropriate blocks on page 1 of Attachment 1. N-41 Top: 181.2 N-41 Bottom: 154.4 N-42 Top: 138.5 N-42 Bottom: 141.5 N-43 Top: 151.0 N-43 Bottom: 129.7 N-44 Top: 185.6 N-44 Bottom: 162.8	

STEP 4 : √	7.1.4 Complete calculations of Attachment 1. 1. Determination normalized detector currents. 2. Determination average normalized power. 3. Determine QPTR. 4. Determine NIS QPTR. 5. Determine if NIS QPTR is < or = 1.02 (2.0%).	___ SAT ___ UNSAT
STANDARD:	1. Calculates normalized detector currents. N-41 Top: 179.8/181.2 = 0.9923 N-42 Top: 142.0/138.5 = 1.0253 N-43 Top: 151.3/151.0 = 1.0020 N-44 Top: 183.1/185.6 = 0.9865 N-41 Bottom: 153.0/154.4 = 0.9909 N-42 Bottom: 142.2/141.5 = 1.0049 N-43 Bottom: 127.1/129.7 = 0.9800 N-44 Bottom: 160.6/162.8 = 0.9865 2. Calculates average normalized power. Upper Section Normalized Current Total = 4.0061 Average Upper Section Normalized Power = 4.0061/4 = 1.0015 Lower Section Normalized Current Total = 3.9623 Average Lower Section Normalized Power = 3.9623/4 = 0.9906 3. Calculates QPTR. Upper Section Tilt Ratio = 1.0253/1.0015 = 1.0238 Lower Section Tilt Ratio = 1.0049/0.9906 = 1.0144 4. Calculates NIS QPTR. NIS QPTR = Upper Section Tilt Ratio = 1.0253/1.0015 = 1.0238 5. Correctly evaluates NIS QPTR. Tilt ratio = 1.0238 (Acceptable range: 1.023 to 1.024)	

STEP 5 : √	7.1.5 **<u>IF</u>** QPTR is greater than 1.02 (2.0 percent) **<u>OR</u>** Attachment 1 yields suspect QPTR results, **<u>THEN</u>** perform Subsection 7.2.	___ SAT ___ UNSAT
STANDARD:	CUE: Inform applicant that another operator will perform Subsection 7.2. For RO's **STOP** here.	

STEP 6 :	Signs, dates, and records time on page 2 of Attachment 1.	___ SAT ___ UNSAT
STANDARD:	Properly records required information.	

STEP 7. : √	**FOR SROs:** Applies TS 3.2.4	___ SAT ___ UNSAT
STANDARD:	Per TS 3.2.4, applicant recommends to Shift Manager: Calculate QPTR hourly. Within 2 hours reduce power at least 3% (>7% power reduction, power ≤ 93%) from RTP for each 1% of indicated QPTR in excess of 1 and similarly reduce power range high flux trip setpoints (>7% setpoint reduction, setpoint ≤ 101%) within next 4 hours. **STOP**	

Stop Time ________

Verification of Completion

Job Performance Measure No. Conduct of Ops 2

Examinee's Name: ______

Examiner's Name: ______

Date Performed: ______

Facility Evaluator: ______

Number of Attempts: ______

Time to Complete: ______

Question Documentation:

Question:

______

______

______

______

______

Response:

______

______

______

______

______

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______ ______

JPM BRIEFING SHEET

INITIAL CONDITIONS:

The plant is operating at 100% power.

Detector currents for all in service power range nuclear instrumentation channels are as follows:

N-41 Top:	179.8	N-41 Bottom:	153.0
N-42 Top:	142.0	N-42 Bottom:	142.2
N-43 Top:	151.3	N-43 Bottom:	127.1
N-44 Top:	183.1	N-44 Bottom:	160.6

INITIATING CUE:

The Shift Manager has directed you to determine NIS QPTR using excore detector currents and identify if QPTR is within Tech Spec limits.

SROs: If calculated QPTR is determined to exceed Tech Spec Limits, apply the applicable Tech Spec and recommend to the Shift Manager all required Tech Spec actions.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Prepare an ECO for 3C Charging Pump	Job Performance Measure No:	Equipment Control
K/A Reference:	G2.2.13		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Classroom

Simulated Performance Yes Actual Performance

Classroom Yes Simulator Plant

Read to the examinee:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

The plant is in Mode 1. The 3C Charging Pump has developed a significant leak from the suction stabilizer. Maintenance has requested an "Emergency Repair" tagout to repair the leak. The computer is unavailable for generating ECOs.

Task Standard:

The ECO form is completed to the following criteria:

1. All steps marked as critical on the answer key are included on the applicant's form.
2. The step for rackout of breaker 35008 precedes all other steps requiring manipulation of valves.
3. The correct positions of all components on critical steps are included on the applicant's form.
4. At least one vent path and one drain path are properly identified and tagged.

The following listed items are not critical to completion of this ECO:

1. The order of steps following the rackout step of 35008.
2. Equipment Description and Equipment Location wording do not have to exactly match the answer key.
3. The identification of valve 3-275C as being "Lock" close. "Close" will suffice.

Note that valves with "Danger" tags that are not marked critical on the answer key may be included by the applicant to provide vent and drain paths in preparation for maintenance.

Required Materials:
1. POD 5613-M-3047, Sheet 2, "Chemical and Volume Control System Charging and Letdown"
2. 0-ADM-212, "In-Plant Equipment Clearance Orders"
3. 0-ADM-212.1, "Operations In-Plant Equipment Clearance Orders"
4. PTN Breaker Book
5. Blank ECO Form

6. Pencil

General References:

1. 3-OP-047, CVCS – CHARGING AND LETDOWN
2. 3-OSP-300.2, Alternate Shutdown Panel 3C264 Switch and Instrument Alignment Check
3. Operating Diagram, 5613-M-3047, Sh 1, CVCS Charging and Letdown
4. Operating Diagram, 5613-M-3047, Sh 2, CVCS Charging and Letdown
5. PC/M 88-605, Drawing 5613-M-3047, Sheet 1, CVCS - Charging and Letdown System
6. Valve Lineups

Initiating Cue:

The Shift Manager has directed you to generate a clearance (ECO) for the 3C Charging Pump to facilitate repairing the leak on the suction stabilizer. Restoration steps are not required.

NOTE: **Access to the computer based ECO generating system (NOMS) is not allowed while performing this task.**

Only computer access of plant procedures, breaker book and drawings is allowed subject to evaluator approval.

Time Critical Task: No

Validation Time: 30 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
The plant is in Mode 1. The 3C Charging Pump has developed a significant leak from the suction stabilizer. Maintenance has requested an "Emergency Repair" tagout to repair the leak. The computer is unavailable for generating ECOs.

INITIATING CUE:
The Shift Manager has directed you to generate a clearance (ECO) for the 3C Charging Pump to facilitate repairing the leak on the suction stabilizer. Restoration steps are not required.

NOTE: **Access to the computer based ECO generating system (NOMS) is not allowed while performing this task.**

Only computer access of plant procedures, breaker book and drawings is allowed subject to evaluator approval.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Identify/obtain the necessary reference materials.	___ SAT ___ UNSAT
STANDARD:	Obtains the requisite reference materials. 1. POD 5613-M-3047, Sheet 2, “Chemical and Volume Control System Charging and Letdown” 2. 0-ADM-212, “In-Plant Equipment Clearance Orders” 3. 0-ADM-212.1, “Operations In-Plant Equipment Clearance Orders” 4. PTN Breaker Book 5. Blank ECO Form 6. Pencil **CUE: Provide copies of listed materials.**	

STEP 2 : √	Sequentially enter the necessary items/components to TAG.	___ SAT ___ UNSAT
STANDARD:	Enters ALL the components required to adequately isolate the pump commensurate with plant conditions that will exist during the performance of the maintenance/repair. NOTE: The applicant is required to enter the rackout of breaker 35008 as the first item in the sequence of steps.	

STEP 3 :	Enter all information IAW all governing documents.	___ SAT ___ UNSAT
STANDARD:	All information properly recorded and notated.	

STEP ___ :	**STOP**	___ SAT ___ UNSAT
STANDARD:	Applicant returns all completed materials.	

Stop Time ________

Verification of Completion

Job Performance Measure No. Equipment Control

Examinee's Name: ____________________

Examiner's Name: ____________________

Date Performed: ____________________

Facility Evaluator: ____________________

Number of Attempts: ____________________

Time to Complete: ____________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ____________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

The plant is in Mode 1. The 3C Charging Pump has developed a significant leak from the suction stabilizer. Maintenance has requested an "Emergency Repair" tagout to repair the leak. The computer is unavailable for generating ECOs.

INITIATING CUE:

The Shift Manager has directed you to generate a clearance (ECO) for the 3C Charging Pump to facilitate repairing the leak on the suction stabilizer. Restoration steps are not required.

NOTE: **Access to the computer based ECO generating system (NOMS) is not allowed while performing this task.**

Only computer access of plant procedures, breaker book and drawings is allowed subject to evaluator approval.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Determine Dose Rates & Implement ALARA	Job Performance Measure No:	Radiation Control
K/A Reference:	G2.3.10		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:	Perform		
Simulated Performance		Actual Performance	Yes

Classroom Yes Simulator ______ Plant ______

Read to the examinee:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
An NLO has been assigned the task of performing a valve lineup in the Auxiliary Building. The area where the valves are located has a dose rate of 24mr/hr. From experience, the NLO knows that it will take 45 minutes to perform the valve lineup. Alternatively, the dose rate can be reduced to 10 mr/hr if lead shielding is employed in the area. It will take 2 maintenance workers 15 minutes to install the lead shielding. The presence of the lead shielding will increase the NLO's work time from 45 minutes to 60 minutes.

Task Standard:
Dose is correctly calculated with lead shielding and without lead shielding and determines that the job should be performed without lead shielding and reports findings.

Required Materials:
1. Calculator
2. 0-ADM-600, RADIATIONO PROTECTION MANUAL

General References:
1. 0-ADM-600, RADIATION PROTECTION MANUAL
2. 0-ADM-602, ALARA PROGRAM

Initiating Cue:
You have been directed to determine the dose received if the NLO doesn't use lead shielding while performing the valve lineup and the dose received if lead shielding is used. Report to the Shift Supervisor which method will result in the lowest dose and keep exposure ALARA.

Time Critical Task: No

Validation Time: 10 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
An NLO has been assigned the task of performing a valve lineup in the Auxiliary Building. The area where the valves are located has a dose rate of 24mr/hr. From experience, the NLO knows that it will take 45 minutes to perform the valve lineup. Alternatively, the dose rate can be reduced to 10 mr/hr if lead shielding is employed in the area. It will take 2 maintenance workers 15 minutes to install the lead shielding. The presence of the lead shielding will increase the NLO's work time from 45 minutes to 60 minutes.

INITIATING CUE:
You have been directed to determine the dose received if the NLO doesn't use lead shielding while performing the valve lineup and the dose received if lead shielding is used. Report to the Shift Supervisor which method will result in the lowest dose and keep exposure ALARA.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

Denote critical steps with a check mark

Start Time ________

STEP 1 : √	Calculates NLO dose without lead shielding.	___ SAT ___ UNSAT
STANDARD:	Accurately calculates NLO dose without lead shielding. (0.75 hours) x (24 mR/hour) = **18.0 mRem**	
STEP 2 : √	Calculates dose with lead shielding.	___ SAT ___ UNSAT
STANDARD:	Accurately calculates dose with lead shielding. NLO dose: (1.00 hours) x (10 mR/hour) = 10.0 mRem Maintenance Worker dose: (0.25 hours) x (24 mr/hour) x 2 persons = 12.0 mRem Total job dose = 10.0 + 12.0 = **22.0 mRem**	
STEP 3 : √	Determines that the job should be performed without lead shielding. Reports findings.	___ SAT ___ UNSAT
STANDARD:	**Determines that the job should be performed without lead shielding.** Reports findings.	
STEP 4 :	**STOP**	___ SAT ___ UNSAT
STANDARD:		

Stop Time ________

Verification of Completion

Job Performance Measure No. Radiation Control

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

An NLO has been assigned the task of performing a valve lineup in the Auxiliary Building. The area where the valves are located has a dose rate of 24mr/hr. From experience, the NLO knows that it will take 45 minutes to perform the valve lineup. Alternatively, the dose rate can be reduced to 10 mr/hr if lead shielding is employed in the area. It will take 2 maintenance workers 15 minutes to install the lead shielding. The presence of the lead shielding will increase the NLO's work time from 45 minutes to 60 minutes.

INITIATING CUE:

You have been directed to determine the dose received if the NLO doesn't use lead shielding while performing the valve lineup and the dose received if lead shielding is used. Report to the Shift Supervisor which method will result in the lowest dose and keep exposure ALARA.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Control Room Evacuation – Classify and Determine Notifications	Job Performance Measure No:	Emergency Plan
K/A Reference:	G2.4.41		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Perform

Simulated Performance Yes Actual Performance ______

Classroom Yes Simulator ______ Plant ______

Read to the examinee:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

INITIAL CONDITIONS FOR CLASSIFICATION:

0659: Both units are at 100% power.
0700: A fire starts in the Control Room.
0705: The Shift Manager orders Control Room Evacuation.
0720: The Unit ROs have not yet established control of shutdown systems.

ADDITIONAL INITIAL CONDITIONS FOR FLORIDA NUCLEAR PLANT EMERGENCY NOTIFICATION FORM COMPLETION:

Wind direction is from 168°.
Wind speed is 5 mph.
MET Tower $\Delta T = -1.0$
MET Tower Sigma Theta = 7.0
TSC ERDADS data implies normal post shutdown core parameters being maintained.
Process and Area Radiation monitors are reading normal post shutdown values.

Task Standard:

1. The highest level of classification is made.
2. The Florida Nuclear Plant Emergency Notification Form is completed in accordance with standards set in 0-EPIP-20101, "Duties of Emergency Coordinator."

Required Materials:

1. 0-EPIP-20101, DUTIES OF EMERGENCY COORDINATOR, Enclosure 1
2. 0-EPIP-20101, DUTIES OF EMERGENCY COORDINATOR, Attachment 1

General References:

1. 0-EPIP-20101, DUTIES OF EMERGENCY COORDINATOR

Initiating Cue:

You are the Emergency Coordinator. It is now 0720. Identify the emergency classification that applies.

Following classification, complete the Florida Nuclear Plant Emergency Notification Form.

Time Critical Task: Yes

Validation Time: 30 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:

WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET, PROCEDURE, AND NOTIFICATION FORM FOR CLASSIFICATION TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS FOR CLASSIFICATION:

0659: Both units are at 100% power.
0700: A fire starts in the Control Room.
0705: The Shift Manager orders Control Room Evacuation.
0720: The Unit ROs have not yet established control of shutdown systems.

ADDITIONAL INITIAL CONDITIONS FOR FLORIDA NUCLEAR PLANT EMERGENCY NOTIFICATION FORM COMPLETION:

Wind direction is from 168°.
Wind speed is 5 mph.
MET Tower $\Delta T = -1.0$
MET Tower Sigma Theta = 7.0
TSC ERDADS data implies normal post shutdown core parameters being maintained.
Process and Area Radiation monitors are reading normal post shutdown values

INITIATING CUE:

You are the Emergency Coordinator. It is now 0720. Identify the emergency classification that applies.

Following classification, complete the Florida Nuclear Plant Emergency Notification Form.

NOTE: This is a Time Critical Task.

TERMINATION CUE:

WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Obtain 0-EPIP-20101.	___ SAT ___ UNSAT
STANDARD:	0-EPIP-20101 obtained in a timely manner. **CUE: Provide procedure when correctly identified.**	

STEP 2 :	Review 0-EPIP-20101.	___ SAT ___ UNSAT
STANDARD:	1. Reviews 0-EPIP-20101, Enclosure 1, for the event in progress. 2. Reviews each classification in Enclosure 1 in sequence. 3. Reviews Enclosure 1 in its entirety.	

STEP 3 : √	1. Identify appropriate emergency classification. * 2. Notify SM.	___ SAT ___ UNSAT
STANDARD:	1. Classifies event as a Site Area Emergency in accordance with 0-EPIP-20101, Enclosure 1, Category 15, due to failure to establish control of shutdown system from outside the control room within 15 minutes. 2. Notifies SM. **NOTE: Standards marked with an * are critical to this Step.** **Cue: As SM, acknowledge report by applicant.** **Stop time:** ________ **(15 minutes acceptance criteria)**	

STEP 4	1. Obtain 0-EPIP-20101, Attachment 1, "Florida Nuclear Plant Emergency Notification Form."	SAT UNSAT
STANDARD	**CUE: Provide Attachment 1 when correctly identified.** **Start time:** ________	

STEP 5	1. Completes Attachment 1 IAW with standards set in 0-EPIP-20101, "Duties of Emergency Coordinator."	SAT
√*		UNSAT
STANDARD	1.A. Checks "This is a Drill" 2.A. Enters date 2C. Enters name 2D. Enters Message Number 1 2E. Checks Reported from TSC 3D. Checks TP UNIT 3 4C. Checks Site Area Emergency * 5A. Checks EMERGENCY DECLARATION * 5. Enters Date and time of Declaration 6A. and 7B. Checks EAL Number and enters 15 or 6B and adds info related to fire in Control Room and Control Room Evacuation. * **<u>OR</u>** 6B. and 7A. Checks None or 7B and adds info related to fire in Control Room and Control Room Evacuation. * 8A. Enters 168° 8B. Enters Q, R, A, B 9A. Checks None * 10. NA 11A. Checks No recommended actions at this time. * 11C. Checks NO 12A/B/C/D. Checks YES for each 12D. Checks Stable 13A. Enters 5 mph 13B. Enters "D" Submits form for EC Approval. **NOTE: Standards marked with an * are critical to this Step.**	

STEP ____ :	**STOP** **Stop time:** ________ **(15 minutes acceptance criteria, from classification completion)**	____ SAT ____ UNSAT
STANDARD:		

Stop Time ________

Verification of Completion

Job Performance Measure No. Emergency Plan

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS FOR CLASSIFICATION:

0659: Both units are at 100% power.

0700: A fire starts in the Control Room.

0705: The Shift Manager orders Control Room Evacuation.

0720: The Unit ROs have not yet established control of shutdown systems.

ADDITIONAL INITIAL CONDITIONS FOR FLORIDA NUCLEAR PLANT EMERGENCY NOTIFICATION FORM COMPLETION:

Wind direction is from 168°.

Wind speed is 5 mph.

MET Tower ΔT = -1.0

MET Tower Sigma Theta = 7.0

TSC ERDADS data implies normal post shutdown core parameters being maintained.

Process and Area Radiation monitors are reading normal post shutdown values

INITIATING CUE:

You are the Emergency Coordinator. It is now 0720. Identify the emergency classification that applies.

Following classification, complete the Florida Nuclear Plant Emergency Notification Form.

NOTE: This is a Time Critical Task.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Align RHR for Cold Leg Recirc	Job Performance Measure No:	Systems – a
K/A Reference:	005A4.01		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Simulator

Simulated Performance ______ Actual Performance Yes

Classroom ______ Simulator Yes Plant ______

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. Injection phase of a LOCA is in progress.

Task Standard:
1. Align RHR Pump for recirculation to the RCS cold legs.
2. Flow verified at greater than 1500 gpm and stable

Required Materials:
1. 3-EOP-ES-1.3

General References:
1. 3-EOP-ES-1.3

Initiating Cue:
1. You are at Step 23 of 3-EOP-E-1.
2. You have been directed to align RHR for Cold Leg Recirc.

Time Critical Task: Yes/No

Validation Time: 20 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
Injection phase of a LOCA is in progress.

INITIATING CUE:
1. You are at Step 23 of 3-EOP-E-1.
2. You have been directed to align RHR for Cold Leg Recirc.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:
1. Reset simulator to IC-21.
2. Injection phase of a LOCA is in progress.
3. Containment spray pumps are operating.
4. 3-EOP-E-1 is in use.
5. Annunciator H-6/5, RWST LO LEVEL, just actuated.
6. The operating crew has just transitioned from 3-EOP-E-1, LOSS OF REACTOR OR SECONDARY COOLANT, Step 23 to 3-EOP-ES-1.3, TRANSFER TO COLD LEG RECIRCULATION, Step 1.
7. RWST level at 145,000 gallons. [affects step 14]
8. Containment Recirculation Sump Level at 443 INCHES. [affects step 14]
9. Two Containment Spray Pumps are running.
10. 3A & 3B HHSI pumps are running.
11. RCS pressure is 5 psig.
12. VCT Level < 4 %.
13. MOV-3-862A & B are OPEN and cannot be shut. [affects step 12] Insert failure before taking simulator to run as follows: Click on SCHEMATICS → SAFETY SYSTEM → RHR PROCESS → MOV-862A → TFMUV09S MOV-862A FAIL AS IS → TRUE → INSERT → MOV-862B → TFMUV10S MOV-862B FAIL AS IS → TRUE → INSERT. When called as PO to locally close MOV-3-862A or B, report that HP has determined that radiation levels are too high to locally access these valves.
14. When called as PO to locally close 3-752A or B, close them as follows: From the RHR PROCESS SYSTEM MIMIC, click on 752A → TAMR1V30 752A VALVE PORT AREA → Set selected value = 0.0 → INSERT → 752B → TAMR1V31 752 B VALVE PORT AREA → Set selected value = 0.0 → INSERT. Report 3-752A&B both closed.

Denote critical steps with a check mark

	ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)
	_________ START TIME		
	1. Verify SI – RESET	Safety Injection verified reset.	S / U
√	CAUTION: If RWST level is ≤ 155,000 gallons or cold leg recirc has been established, only one containment spray pump shall be operated with the second pump in PULL-TO-LOCK.	Note RWST level < 155,000 gallons.	S / U
	2. **Align Containment Spray Pumps**		
	a. Containment spray pumps – ANY RUNNING	Recognizes that 2 containment spray pumps are running.	S / U
	b. Reset containment spray signal	Resets containment spray signal.	S / U
√	c. Stop all but one containment spray pump	Stops one containment spray pump.	S / U
	d. Place idle containment spray pump in PULL-TO-LOCK	Places idle containment spray pump in PULL-TO-LOCK	S / U
	e. Close Containment Spray Isolation valve on all idle spray pumps • MOV-3-880A for CSP A • MOV-3-880B for CSP B	Shuts one and leaves one open	S / U

	ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)
C	CAUTION: If RCS pressure is > 1600 psig, HHSI pumps are required to be stopped.	Notes RCS pressure is < 1600 psig. (May not observe this until next step.)	
3.	**Check HHSI Pump Status – AT LEAST ONE RUNNING**	Notes 2 HHSI pumps running.	S / U
4.	**Place Both RHR Pumps In PULL-TO-LOCK**	Places both RHR pumps in P-T-L.	S / U
5.	**Check RHR System – ALIGNED FOR INJECTION**	Checks RHR System Aligned for Injection.	S / U
6.	**Align Charging Pump Suction To VCT**		
	a. Check VCT Outlet Valve, MOV-3-115C – CLOSED	Notes MOV-3-115C closed.	S / U
	a. Realign makeup to VCT		
	1) Place control switch for FCV-3-114B in OPEN	Places control switch for FCV-3-114B in OPEN.	S / U
	2) Place control switch for FCV-3-113B in CLOSED	Place control switch for FCV-3-113B in CLOSED.	S / U
	b. Adjust makeup flow controller potentiometers as follows	Operator makes proper adjustment.	
	• Primary water at 4.0 for 60 gpm	Operator makes proper adjustment.	S / U
	• Boric Acid at 8.0 for 40 gpm	Verifies switch in AUTOMATIC.	S / U
	c. Verify Reactor Makeup Selector Switch – IN AUTOMATIC	Places switch to START.	S / U
	d. Place RCS Makeup Control Switch to START	Adjusts and maintains charging flow < makeup system flow settings.	S / U

	ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)
	e. Adjust and maintain charging flow < makeup system flow settings		S / U
	NOTE: Operator will adjust charging flow to < 100 gpm (4.0 + 6.0 on pot settings).	Checks VCT level > 11%.	S / U
	f. Check VCT level greater than 11%		
	NOTE: Operator may have to wait for VCT level to increase. **CUE: When VCT level increases to > 11%, state that another operator will take over VCT level control.**		
7.	**Establish Hot Leg Recirculation Capability**		
	a. Verify Loop Hot Leg Safety Injection valves – BOTH CLOSED		
	• MOV-3-866A	Operator observes these valves closed.	S / U
	• MOV-3-866B		
	b. Open Safety Injection To Hot Leg Isolation, MOV-3-869	Operator opens Safety Injection To Hot Leg Isolation, MOV-3-869	S / U
8.	**Close both Unit 3 HHSI Pump Recirc To RWST Valves**		
√	• MOV-3-856A	Operator obtains key, turns on control power and closes valve.	S / U
√	• MOV-3-856B	Operator obtains key, turns on control power and closes valve.	S / U
9.	**Check If HHSI Pump Header Isolation Valves Should Be Closed**		
	a. Check Unit 3 HHSI pumps – AT LEAST ONE RUNNING	Observes 3A & 3B HHSI pumps running.	S / U
	b. Verify Unit 4 HHSI pumps – BOTH	Observes both stopped.	S / U

	ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)
	STOPPED		
	c. Close both HHSI Pump Header Isolation valves		
√	• MOV-878A	Closes MOV-878A.	S / U
√	• MOV-878B	Closes MOV-878B.	S / U
	10. Verify Cold Leg Recirculation Valves Are Energized By Checking Valve Position Lights On Control Board		
	a. MOV-3-866A	Observes a position light for each valve is on.	S / U
	b. MOV-3-866B		
	c. MOV-3-864A		
	d. MOV-3-864B		
	e. MOV-3-862A		
	f. MOV-3-862B		
	g. MOV-3-863A		
	h. MOV-3-863B		
	i. MOV-3-750		
	j. MOV-3-751		
	11. Verify RHR Alternate Discharge - ISOLATED		
	• MOV-3-863A - CLOSED	Observes valve is shut.	S / U
	• MOV-3-863B - CLOSED	Observes valve is shut.	S / U

12. **Close Both RHR Suction From RWST Valves**

	• MOV-3-862A **(RNO)**	Attempts to close valves from VPB. Determines neither valve will close.	S / U
	• MOV-3-862B **(RNO)**		
		Directs PO to close valves locally.	S / U
		Radiation level in area makes local operation prohibitive.	
√	The applicant directs the PO to locally unlock and open 3-752A 3-752B.	Locally unlocks and shuts 3-752A and/or 3-752B.	S / U

Caution
Do not continue until RHR pump suction is isolated from the RWST.

13. **Align RHR Suction To Containment Recirc Sump**

√	• Open MOV-3-860A	Opens valve.	S / U
√	• Open MOV-3-860B	Opens valve.	S / U
√	• Open MOV-3-861A	Opens valve.	S / U
√	• Open MOV-3-861B	Opens valve.	S / U

14. **Verify Adequate Recirculation Sump Level**

a. Verify RWST level – GREATER THAN 60,000 GALLONS	Observes RWST level > 60,000 gallons.	S / U
b. Verify containment recirculation sump level – GREATER THAN 427 INCHES		S / U

15. **Verify Adequate CCW Heat Exchanger Capability For RHR Cooling**

	a. Verify ALL Normal Containment Coolers - OFF	Operator may also reposition control switches to OFF as well	S / U
	b. Isolate CCW to the Normal Containment Coolers • **CLOSE MOV-3-1417** • **CLOSE MOV-3-1418**	Operator may also reposition control switches to OFF as well	S / U
	c. CCW Heat Exchangers – THREE IN SERVICE	Notes that they are already in service	S / U
	d. CCW pumps – ONLY TWO RUNNING	Notes that they are already running	S / U
	e. Open RHR Heat Exchanger CCW Outlet Valves	Opens both valves	
√	• MOV-3-749A		S / U
√	• MOV-3-749B		S / U
√ 16.	**Start One RHR Pump In Train With Open RHR Heat Exchanger CCW Outlet Valve**	Starts either pump	S / U
17.	Monitor Indications For Recirculation Sump Blockage a. Check for the following: • RHR flow <u>AND</u> amp oscillations • Low RHR flow <u>AND</u> amps **[RNO]**	RNO – Go to Step 18.	S / U
18.	**Determine SI System Piggy-Back Recirculation Requirements** a. Check all of the following:		
	1) RHR flow on FI-3-605 – EQUAL TO **<u>OR</u>** GREATER THAN 1500 GPM	Yes - Should be around 3300 gpm	
	2) Containment pressure – LESS THAN 14 PSIG	Yes – Should be around 7#	
√	3) Containment temperature – LESS THAN 122°F	**NO** – Should be around 129°F **[RNO]** Piggy-Back Recirc required, go to Step 19.	S / U

√	19. **Isolate RHR Cold Leg Injection As Follows** a. Close both RHR Discharge To Cold Leg Isolation valves • MOV-3-744A • MOV-3-733B	Shuts both valves	S / U
	NOTE *Steps 20 through 24 should be reviewed prior to performance to ensure a timely transition to cold leg recirculation.*	Applicant should observe this note	
	20. Check RWST Level – LESS THAN 60,000 GALLONS	**CUE: IF GREATER THAN 60,000 TIME COMPRESSION RWST level is now < 60,000**	
	CAUTIONS • Injection flow to the core shall NOT be interrupted for more than 2 minutes during performance of Steps 21 through 24. • All SI pumps aligned to Unit 3 RWST are required to be placed in PULL-TO-LOCK to prevent pump auto start while its suction source is isolated.	**Mark time for 2 minutes**	________
√ √ √	21. **Place The Following Pumps In PULL-TO-LOCK** • Unit 3 Containment spray pumps • ALL high-head SI pumps aligned to Unit 3 RWST	Places 3A CSP in PTL Places 3A SIP in PTL Places 3B SIP in PTL	S / U
√ √	22. **Simultaneously Close Both RWST Outlet Isolation Valves** • MOV-3-864A • MOV-3-864B	Closes MOV-3-864A Closes MOV-3-864B	S / U

	CAUTION Either MOV-3-864A or MOV-3-864B must be closed prior to continuing with this procedure.	Applicant notes caution	
23.	**Align RHR Pump Discharge To High-Head SI Pump Suction**		S / U
	a. Verify RWST Outlet Isolation Valves – CLOSED		
	• MOV-3-864A	Verifies closed	
	• MOV-3-864B	Verifies closed	
	b. Simultaneously open both RHR Alternate Discharge Isolation Valves		
√	• MOV-3-863A	Closes valve	
√	• MOV-3-863B	Closes valve	
√ 24.	Start One High-Head SI Pump	Starts 3A or 3B SI pump	S / U
		Mark time for end of 2 minutes	________
25.	Check If Containment Spray Required		
	a. Check if Containment Spray Required to cool containment		
	• Containment pressure ≥ 14 PSIG **<u>OR</u>**	NO – should be around 7#	
	• Containment temperature ≥ 122°F **<u>OR</u>**	**YES** – should be around 147°F and ↑ **Goes on to next step (26).**	S / U
	• Several more things to check	These are all NO.	

√ 26.	Establish Containment Spray As Follows		
	a. Verify Containment Spray Isolation Valve associated with the spray pump to be started - OPEN • MOV-3-880A for CSP A **OR** • MOV-3-880B for CSP B	Opens and starts same train valve/pump	S / U
	b. Start one Containment Spray Pump • 3A Containment Spray Pump **OR** • 3B Containment Spray Pump		
27.	Close Containment Spray Isolation Valve On Idle Spray Pump(s) • MOV-3-880A for CSP A • MOV-3-880B for CSP B	Closes appropriate valve(s).	
28.	Go To Step 35	Goes to Step 35.	
	NOTE *Shifting RCS injection source from the RWST to the hotter recirculation sump may cause a slight increase in core exit temperature.*		
35.	Verify Core Exit T/Cs – STABLE OR DECREASING	**CUE: "TIME COMPRESS"** **"CETs are [give current value] and stable."**	
36.	Notify Chemistry To Align PASS For Sampling Of The RHR System	**CUE:** **Chemistry has been notified.**	
37.	Direct Operator To Perform Post Accident Chemical Injection To RCS Using ATTACHMENT 2	**CUE:** **Another operator will perform this action.**	
38.	Return To Procedure AND Step In Effect	**CUE:** **Another operator will perform this action.**	STOP

RECORD STOP TIME ________

Verification of Completion

Job Performance Measure No. Systems – a

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ______________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

Injection phase of a LOCA is in progress.

INITIATING CUE:

1. You are at Step 23 of 3-EOP-E-1.
2. You have been directed to align RHR for Cold Leg Recirc.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Respond to Loss of RHR	Job Performance Measure No:	Systems – b
K/A Reference:	005A4.01		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Simulator

Simulated Performance ______ Actual Performance Yes

Classroom ______ Simulator Yes Plant ______

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. The reactor has been shutdown for 9 days
2. Mode 5 operation, RCS temperature = 98°F, RCS pressure = 0 psig, draindown level = 62%
3. RCS is open (both hot and cold manways open on one S/G)
4. The crew was performing 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE, when it was reported that the leak is at valve 3-885 (See drawing 5613-M-3064, Sheet 1; Provided). Charging flow has been adjusted to stabilize draindown level.

Task Standard:
1. Complete Attachment 1.
2. Isolate the leak.
3. Align RHR System for Alternate Cooldown.

Required Materials:
1. 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE, Attachment 1.

General References:
1. 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE

Initiating Cue:
You are the Unit 3 RO and the SRO has directed you to complete Attachment 1 of 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE.

Time Critical Task: Yes/No

Validation Time: 20 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:

WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:

1. The reactor has been shutdown for 9 days
2. Mode 5 operation, RCS temperature = 98°F, RCS pressure = 0 psig, draindown level = 62%
3. RCS is open (both hot and cold manways open on one S/G)
4. The crew was performing 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE, when it was reported that the leak is at valve 3-885 (See drawing 5613-M-3064, Sheet 1; Provided). Charging flow has been adjusted to stabilize draindown level.

INITIATING CUE:

You are the Unit 3 RO and the SRO has directed you to complete Attachment 1 of 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE.

TERMINATION CUE:

WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:

1. Reset simulator to IC-25. Insert RCS leak by clicking on SCHEMA → REACTOR COOLANT SYSTEM → MAIN RCS HYDRAULICS → HHSI LINE BREAK → TVHHSIHB SI HOT LEG B CONNECTION LEAKAGE → enter selected value = 0.5 → INSERT. Take simulator to run, start one charging pump and adjust charging pump demand to 20% or as needed to stabilize RCS draindown level. Freeze simulator and shoot temporary IC if needed for repeat runs of this JPM.

2. Provide copy of drawing 5613-M-3064, Sht. 1, with valve 3-885 circled.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Obtain copy of Attachment 1 of 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE.	____ SAT ____ UNSAT
STANDARD:	Operator obtains a copy of Attachment 1 of 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE.	

STEP 2 :	1. Check RHR System Components Between RCS (MOV-3-750 / MOV-3-751 AND 3-752A, 3-752B) And 3A/3B RHR Pump Inlet Isolation Valves - NOT LEAKING	____ SAT ____ UNSAT
STANDARD:	Operator may use information given from initial conditions or may call to have check performed. Determines that leak is not from this location.	

STEP 3 :	2. Check RHR System Components Bounded By The following RHR Valves - NOT LEAKING: · 3-752A, 3A RHR Pump Inlet Isolation · 3-759A, RHR HX A Outlet Valve · 3-757D, RHR HX A Bypass Hdr Isol	____ SAT ____ UNSAT
STANDARD:	Operator may use information given from initial conditions or may call to have check performed. Determines that leak is not from this location.	

STEP 4 : √	3. Check RHR System Components Bounded By The Following RHR Valves - NOT LEAKING: · 3-752B, 3B RHR Pump Inlet Isolation · 3-759B, RHR HX B Outlet · 3-757C, RHR HX B Bypass Hdr Isol	____ SAT ____ UNSAT
STANDARD:	Operator determines leak location from P&ID.	

STEP 5 :	4. Check RHR System Components Between RCS And RHR DISCH To Cold Leg Isol Valves - NOT LEAKING - **NO** · MOV-3-744A RHR DISCH To Cold Leg Isol Valve · MOV-3-744B RHR DISCH To Cold Leg Isol Valve **RNO** Perform the following: a. Stop both RHR pumps. b. Shut the following valves: · MOV-3-744A · MOV-3-744B c. Go to Step 7 of this ATTACHMENT.	___ SAT ___ UNSAT
STANDARD: √ √	 1. Identifies leak location. 2. Stops the running (3A) RHR pump. 3. Shuts MOV-3-744A and MOV-3-744B	

STEP 6 :	7. Align RHR System For Alternate Cooldown Lineup As Follows:	___ SAT ___ UNSAT
STANDARD:		

STEP 7 : √	a. Close 3-887, RHR To RWST Supply Hdr Isol Vlv	___ SAT ___ UNSAT
STANDARD:	1. Directs PO locally close 3-887.	
	CUE: Simulator operator respond as PO, then click on SCHEMA → SAFETY SYSTEM → RHR PROCESS → 887 → TAMR1V39 887 VALVE PORT AREA → enter selected value = 0.0 → INSERT. Report when complete	

STEP 8 :	b. Check both RHR pump discharge pressures - LESS THAN 210 PSIG · PI-3-600 · PI-3-601	___ SAT ___ UNSAT
STANDARD:	1. Directs PO to locally check pressures.	
	CUE: Simulator operator respond as PO by reporting values shown on RHR PROCESS mimic for P-600 & P-601.	

STEP 9 :	c. Close the following breakers: · 30726 for MOV-3-863A · 30626 for MOV-3-863B	___ SAT ___ UNSAT
STANDARD:	1. Directs PO to shut both breakers.	
	CUE: Simulator operator respond as PO for bkr 30726 & SO for bkr 30626. Click on MOV-3-863A(B) → TCM1D11(12)M MOV-863A(B) 30726(30626) BKR MECH CONT CLOSE → TRUE → INSERT. Report when complete.	

STEP 10 : √	d. Open an RHR Alternate Disch Isol VLV * MOV-3-863A * MOV-3-863B	____ SAT ____ UNSAT
STANDARD:	1. Opens one valve.	

STEP 11 : √	e. Open MOV-3-872, Alternate Low HEAD SI	____ SAT ____ UNSAT
STANDARD:	1. Opens valve.	

STEP 12 :	f. Check RX Vessel Drain Down Level - GREATER THAN OR EQUAL TO 23% - **YES** · LIS-3-6421 · LIS-3-6423	____ SAT ____ UNSAT
STANDARD:	1. Recognizes draindown level > 25%.	

STEP 13 :	g. Start One RHR Pump: * 3A RHR pump with MOV-3-863A - OPEN * 3B RHR pump with MOV-3-863B - OPEN	____ SAT ____ UNSAT
STANDARD:	1. Starts the RHR pump in the same train as the 863 valve above.	

STEP 14 :	h. Maintain running RHR pump differential pressure - BETWEEN 105 AND 115 PSIG * Difference between PI-3-601 and PI-3-1595A for 3A RHR pump * Difference between PI-3-600 and PI-3-1595B for 3B RHR pump	___ SAT ___ UNSAT
STANDARD:	1. Directs PO to maintain proper pump D/P.	
	CUE: Simulator operator respond as PO and report difference between running RHRP suction & discharge pressure as shown on RHR PROCESS mimic. Value reported should be 105-115 psid.	

STEP 15 :	i. Control RCS cooldown rate locally by throttling CCW from operating RHR heat exchanger: * 3-748A for 3A HX * 3-748B for 3B HX	___ SAT ___ UNSAT
STANDARD:	1. Directs PO to open or close 748A or 748B to establish cooldown rate. 2. Observes QSPDS for CETs to stabilize.	
	CUE: Simulator operator respond as PO for local operation of 3-748A(B). Click on CCW ♦ → 748A(B) → TAKA748A(B) 748A(B) RHR HX A(B) OUTLET → enter selected value as desired → INSERT. Report when complete.	___
Terminating Cue:	Candidate has taken action to control cooldown rate	STOP

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – b

Examinee's Name: ____________________

Examiner's Name: ____________________

Date Performed: ____________________

Facility Evaluator: ____________________

Number of Attempts: ____________________

Time to Complete: ____________________

Question Documentation:

Question:

1. What cooldown rate would you expect to establish under these conditions and how or where would you go to make this determination?

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ____________________ __________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. The reactor has been shutdown for 9 days
2. Mode 5 operation, RCS temperature = 98°F, RCS pressure = 0 psig, draindown level = 62%
3. RCS is open (both hot and cold manways open on one S/G)
4. The crew was performing 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE, when it was reported that the leak is at valve 3-885 (See drawing 5613-M-3064, Sheet 1; Provided). Charging flow has been adjusted to stabilize draindown level.

INITIATING CUE:

You are the Unit 3 RO and the SRO has directed you to complete Attachment 1 of 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Recover Misaligned Control Rod with dropped rods and Reactor Trip	Job Performance Measure No:	Systems – c
K/A Reference:	005AA1.02		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Simulator

Simulated Performance ________ Actual Performance Yes

Classroom ________ Simulator Yes Plant ________

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. The Plant was ramping from 60% to 100% power with rod bank "D" at 185 steps when it was noticed that Control Rod H8 indicated 165 steps.
2. This position has been confirmed by flux map to be 165 steps.
3. There has been no RCC motion within the last hour.

Task Standard:
1. Operator recognizes Rods H8 and M8 drop during the attempted recovery of the rod.
2. Operator identifies the dropped rods are in different groups requiring a Reactor Trip.
3. Operator performs a Reactor Trip and IOA's. [for RO]

Required Materials:
1. Key to Rod Disconnect Switch Cabinet
2. 3-ONOP-028.1, RCC MISALIGNMENT

General References:
1. 3-ONOP-028.1, RCC MISALIGNMENT
2. Tech Specs

Initiating Cue:
1. The Shift Manager has just directed you to align control rods IAW ONOP 028.1, RCC MISALIGNMENT. Steps 5.1 through 5.8 have been completed.
2. Permission from Reactor Engineering has been obtained.

Time Critical Task: No

Validation Time: 30 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. The Plant was ramping from 60% to 100% power with rod bank “D” at 185 steps when it was noticed that Control Rod H8 indicated 165 steps.
2. This position has been confirmed by flux map to be 165 steps.
3. There has been no RCC motion within the last hour.

INITIATING CUE:
1. The Shift Manager has just directed you to align control rods IAW ONOP 028.1, RCC MISALIGNMENT. Steps 5.1 through 5.8 have been completed.
2. Permission from Reactor Engineering has been obtained.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:
1. Reset simulator to IC-16. Place simulator in run and click on SCHEMA → REACTOR → ROD CONTROL ROD POSITION → RODS FAILURE → rod H8 (D4 28) → TVLID46 DROP ROD SELECTED HEIGHT (H8) STEP → enter select value = 160 → INSERT → TVLID46 DROP ROD SELECTED HEIGHT (H8) STEP → Enter selected value = 1.0 and condition = IML1OU then INSERT → ROD M8 (D2 26) → TVLID26 DROP ROD SELECTED HEIGHT (M8) STEP → Enter selected value = 1.0 and condition = ILM1OU then INSERT → Instructor Action → Pending IA to monitor activation of malfunctions when rods pulled out. Take rod control to MANUAL and insert the rest of CBD to 185 steps → LEAVE RODS IN MANUAL → Reduce turbine load to 530-535 MWe to match Tavg=Tref. Allow plant to stabilize. Return rod control to AUTO and freeze simulator. Snap temporary IC as needed to support repeat runs of this JPM.
2. Reactor Power is 60%
3. No RCC motion within the last hour.
4. Control Bank “D” is at 185 Steps with the RPI for Control Rod H8 indicating 165 Steps.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	5.9.1 Obtain permission from the Reactor Engineering Supervisor or designee.	___ SAT ___ UNSAT
STANDARD:	Permission obtained from the SM and Reactor Engineering. **CUE: Simulator operator respond as Reactor Engineering. Evaluator respond as SM. Both grant permission to realign rod H8.**	

STEP 2 :	5.9.2 **IF** reactor power has been reduced as per Technical Specification 3.1.3.6, **THEN** do not increase power until the RCC(s) has been realigned.	___ SAT ___ UNSAT
STANDARD:	No action required	

STEP 3 : √	5.9.3 Position the Rod Motion Control Selector switch to Control Bank "D".	___ SAT ___ UNSAT
STANDARD:	Position Rod Motion Control Selector Switch to CBD.	

STEP 4 : √	5.9.4 Place all the lift coil disconnect switches for the misaligned rod bank to the disconnect position (toggle switch down) **EXCEPT** the misaligned RCC switch which is left in the connect position (toggle switch up).	___ SAT ___ UNSAT
STANDARD:	1. Obtain key to Lift Coil Disconnect Box. **CUE: Issue and sign out key.** 2. Toggle down the lift coil disconnect switches for all Bank "D" rods except H8 to the disconnect position. **(D-8, M-8, H-4, H-12)**	

STEP 5 :	5.9.5 Record the step position for the misaligned RCC group demand step counter in the Reactor Control Operators Log Book as follows: 1. Bank __________ 2. Group __________ 3. Position __________ steps	____ SAT ____ UNSAT
STANDARD:	Record the three readings. 1. Bank **D** 2. Group **II** 3. Position **185** steps	

STEP 6 :	5.9.6 Manually set the associated group demand step counter to the position the misaligned RCC is determined to be in.	____ SAT ____ UNSAT
STANDARD:	Reset the Control Bank "D" Group 2 step counter to match the position of rod H8.	

STEP 7 :	5.9.7 **IF** the misaligned RCC is in a control bank, **THEN** reset the Pulse Analog Converter as follows: 1. Place the Bank Position Display switch to the misaligned RCC bank. 2. Hold the Automatic/Manual switch in MANUAL. 3. Pulse the Up/Down switch to obtain the actual misaligned RCC position. 4. Release the Automatic/Manual switch to AUTOMATIC. 5. Place the Bank Position Display Switch in the DISPLAY OFF position.	____ SAT ____ UNSAT
STANDARD:	At rack QR-70: 1. The Bank Position Display Switch is placed to Bank "D." 2. Automatic/Manual Switch placed in MANUAL. 3. Pulse To Analog Bank Position Switch pulsed to the actual misaligned RCC position. 4. Automatic/Manual switch returned to Automatic. 5. Bank Position Display Switch returned to DISPLAY OFF.	

STEP 8 : √	5.9.8 Align the misaligned RCC using guidance provided by the Reactor Engineering Supervisor as follows: 1. Place the Rod Motion Lever to the ~~IN~~/OUT position, as applicable. 2. Maintain Reactor Power at the level determined by the Reactor Engineering Supervisor as follows: a. **IF** misaligned RCC must be withdrawn, **THEN** borate at less than or equal to 10 gpm, as directed by the Reactor Engineering Supervisor. 3. Withdraw or insert the misaligned RCC at 10 to 15 steps per minute to align the control rod. 4. Monitor Power Range Nuclear Instrumentation for abnormal (greater than 3 percent difference between any two detectors at the same elevation) flux tilts. 5. **DO NOT** increase reactor power without permission from the Reactor Engineering 's Supervisor **AND** NPS. 6. Continue to move the misaligned RCC until the group step counter indicates the position recorded in Step 5.9.5.	____ SAT ____ UNSAT
STANDARD:	1. Rod Motion Lever positioned OUT. 2. Operator notices rods H8 and M8 have dropped and that the rods are in different Groups requiring a Reactor Trip.	
	CUE: H8 and M8 will drop when operator places Rod Motion Lever to the OUT position.	

STEP 9 : √	1. Operator manually trips the reactor. 2. Operator manually trips the turbine.	____ SAT ____ UNSAT
STANDARD:	1. Operator performs manual reactor trip. 2. Operator performs manual turbine trip.	

STEP 10 :	Performs IOA's IAW 3-EOP-E-0, REACTOR TRIP OR SAFETY INJECTION, Steps 1 – 4. **1. Verify Reactor Trip** • Rod bottom lights - ON • Reactor trip and bypass breakers – OPEN • Rod position indicators - AT ZERO • Neutron flux - DECREASING	___ SAT ___ UNSAT
STANDARD:	Operator verifies reactor trip.	

STEP 11 :	**2. Verify Turbine Trip** a. All turbine stop valves – CLOSED b. Verify Moisture Separator Reheater Steam Valves – CLOSED • MSR Main Steam Supply Stop MOVs • Reheater Timing Valves • MSR Purge Steam Valves c. Mid and East GCBs – OPEN (Normally 30 second delay)	___ SAT ___ UNSAT
STANDARD:	Operator verifies turbine trip.	

STEP 12 :	**3. Verify Power To Emergency 4 KV Buses** a. Check the A and B 4 KV buses - BOTH ENERGIZED b. Check the D 4KV bus – ALIGNED TO AN ENERGIZED 4 KV BUS c. Check the Load Centers associated with the energized 4KV bus – ENERGIZED • 3A LC • 3B LC • 3C LC • 3D LC • 3H LC	___ SAT ___ UNSAT
STANDARD:	Operator verifies power to emergency 4 KV buses.	

STEP 13 :	**4. Check If SI Is Actuated** * SI Annunciators - ANY ON **OR** * Safeguards equipment – AUTO STARTED	___ SAT ___ UNSAT
STANDARD:	Operator checks if SI is actuated.	
	CUE: Another operator will continue from here.	STOP

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – c

Examinee's Name: ____________________

Examiner's Name: ____________________

Date Performed: ____________________

Facility Evaluator: ____________________

Number of Attempts: ____________________

Time to Complete: ____________________

Question Documentation:

Question:

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____

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Response:

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____

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ____________________ ____________________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. The Plant was ramping from 60% to 100% power with rod bank "D" at 185 steps when it was noticed that Control Rod H8 indicated 165 steps.
2. This position has been confirmed by flux map to be 165 steps.
3. There has been no RCC motion within the last hour.

INITIATING CUE:

1. The Shift Manager has just directed you to align control rods IAW ONOP 028.1, RCC MISALIGNMENT. Steps 5.1 through 5.8 have been completed.
2. Permission from Reactor Engineering has been obtained.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Respond to a Source Range Nuclear Instrument Malfunction (MODE 6)	Job Performance Measure No:	Systems – Control Room d
K/A Reference:	015A4.02		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Simulator

Simulated Performance ______ Actual Performance Yes

Classroom ______ Simulator Yes Plant ______

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. Unit 3 is in Mode 6.
2. Refueling activities are in progress.
3. NIS Source Ranges are both in service.
4. Both Gamma Metrics are OOS for maintenance.

Task Standard:
1. N-32 selected for audio count rate.
2. Core alterations suspended.
3. Controls properly positioned to effectively remove the Source Range Channel N-31 from service.

Required Materials:
3-ONOP-059.5, SOURCE RANGE NUCLEAR INSTRUMENTATION MALFUNCTION

General References:
3-ONOP-059.5, SOURCE RANGE NUCLEAR INSTRUMENTATION MALFUNCTION

Initiating Cue:
Respond to plant alarms.

Time Critical Task: No

Validation Time: 10 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. Unit 3 is in Mode 6.
2. Refueling activities are in progress.
3. NIS Source Ranges are both in service.
4. Both Gamma Metrics are OOS for maintenance.

INITIATING CUE:
Respond to plant alarms.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:

1. RESET TO IC 117 MODE 6 REFUELING IN PROGRESS
2. PLACE BOTH CHANNELS OF GAMMA METRICS O.O.S.:
   A. SCHEMATICS -> REACTOR => INCORE/EXCORE DETECTORS => DETECTOR #9 => DETECTOR FAIL LOW => set TFN1WAFL = T
   B. DETECTOR #10 => DETECTOR FAIL LOW => set TFN1WBFL = T
   C. PLACE BOTH GAMMA METRIC BLOCK SWITCHES TO BLOCK ON CONSOLE
3. SELECT N-31 TO SUPPLY AUDIO COUNT RATE; SELECT N-31/N-32 AND N-35/N-36 ON CONSOLE NIS RECORDER
4. PLACE CSD PLACARDS ON VERTICAL PANELS.
5. UPDATE CONSOLE PLACARD TO READ RCS BORON = 2000 PPM
6. ADJUST BORIC ACID AND PRIMARY WATER AUTO MAKEUP POTS FOR 2000 PPM BORON CONCENTRATION (PW POT = 4.0, BA POT = 8.0)
7 CHANGE ERDADS SCREEN ON VPA TO PT CURVE.
8 TEMPORARILY STORE REVISED IC AS FOLLOWS: SELECT AN UNUSED

   AVAILABLE IC. CLICK ON STORE. INSERT PASSWORD (tampa).

   ADD DESCRIPTION; "TEMPORARY IC FOR JPM 53D". AT END OF DAY

   DELETE TEMPORARY IC BY SELECTING IT, RIGHT CLICK, SELECT DELETE.
9. PROVIDE AN EXTRA OPERATOR TO ACKNOWLEDGE ANNUNCIATORS AND MAINTAIN STABLE PLANT CONDITIONS.
10. **WHEN OPERATOR HAS RECEIVED A TURNOVER OF PLANT STATUS FAIL N-31 HIGH:**
    A. SCHEMATICS -> REACTOR => INCORE/EXCORE DETECTORS => DETECTOR #1 => NEUTRON DETECTOR FAIL HIGH => set TFN1SAFH = T

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Perform Immediate actions of 3-ONOP-059.5, SOURCE RANGE NUCLEAR INSTRUMENTATION MALFUNCTION. 4.0 **IMMEDIATE ACTIONS** 4.5 Mode 6 - Refueling 4.5.1 Malfunction of ONE channel: 1. Switch the AUDIO COUNT RATE CHANNEL SELECTOR to the operable source range. 2. Verify at least 2 out of 4 Source Range and Backup NIS (Gamma Metrics) channels are operable, with one Source Range having audible count rate in the Control Room and Containment. a. **IF** the above requirement is not met, **THEN** suspend all operations involving core alterations **OR** positive reactivity changes. 3. **IF** applicable, **THEN** notify plant personnel of erroneous Containment Evacuation Alarm.	____ SAT ____ UNSAT
√ (1.) √ (a.)		
STANDARD: √ √	1. AUDIO COUNT RATE CHANNEL SELECTOR switched from N-31 to N-32. 2. All operations involving core alterations are suspended.	

STEP 2 :	Operator obtains copy of 3-ONOP-059.5.	____ SAT ____ UNSAT
STANDARD:	Operator obtains copy of 3-ONOP-059.5	

STEP 3 :	5.0 **SUBSEQUENT ACTIONS** 5.5 Mode 6 - Refueling 5.5.1 Malfunction of ONE channel:	____ SAT ____ UNSAT
√	1. Place LEVEL TRIP switch on failed channel in BYPASS position.	
√	2. Place HIGH FLUX AT SHUTDOWN switch on failed channel in BLOCK position.	
	3. Switch an NIS RECORDER to the operable source range.	
	4. **IF** one Source Range having audible count rate in the Control Room and Containment, **AND** 2 out of 4 NIS (NSSS Source Range and Gamma Metrics) Channels are not operable, **THEN** verify RCS boron concentration is greater than or equal to the required boron concentration at least once per 12 hours.	
	5. Notify I&C.	
	6. Monitor Backup NIS (Gamma Metric) Source Range Count Rate.	
STANDARD:	Operator removes N-31 from service.	
√	1. LEVEL TRIP switch positioned to BYPASS.	
√	2. HIGH FLUX AT SHUTDOWN switch positioned to BLOCK.	
	3. Verifies N-32 displayed on console recorder.	
	4. Determines/verifies Boron concentration to be ≥ 1950 ppm.	
	5. Notifies I&C of N-31 failure.	

	BOOTH OPERATOR CUE: If called as Reactor Engineering, state that the required RCS Boron concentration is > 1950 ppm. If called as Chemistry, confirm Boron concentration is 2000 ppm.	

STEP 4 :	Applicant should return procedure and state that he is finished.	____ SAT ____ UNSAT
Terminating CUE:	Evaluator may inform the applicant that another operator will continue from this point.	**STOP**

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – Control Room d

Examinee's Name:

Examiner's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date:

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. Unit 3 is in Mode 6.
2. Refueling activities are in progress.
3. NIS Source Ranges are both in service.
4. Both Gamma Metrics are OOS for maintenance.

INITIATING CUE:

Respond to plant alarms.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Perform a Liquid Waste Release (R-18 Operable)	Job Performance Measure No:	Systems – e
K/A Reference:	068A4.02		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Control Room - In Plant

Simulated Performance: Yes   Actual Performance: ______

Classroom ______   Simulator ______   Plant Yes

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. A liquid release permit has been approved for the "A" MT and the tank recirculation and sampling verification sheet has been signed by the SM.
2. The appropriate procedure for performing a controlled liquid release has been obtained and checked against the OTSC index.
3. All release prerequisites have been satisfied.
4. R-18 is operable.
5. No waste monitor tanks are on recirculation.

Task Standard:
1. Receipt verified of an approved liquid release permit and tank recirculation and sampling verification sheet.
2. Status of R-18 operability was determined and the requirements of 0-OP-061.11 were implemented accordingly.
3. R-18 periodically monitored during the release to ensure count rate within LRP limits.

Required Materials:
1. Approved Liquid Release Permit
2. Signed Tank Recirculation & Sampling Verification Sheet
3. 0-OP-061.11, WASTE DISPOSAL SYSTEM CONTROLLED RADIOLOGICAL LIQUID RELEASE

General References:
1. 0-OP-061.11, WASTE DISPOSAL SYSTEM CONTROLLED RADIOLOGICAL LIQUID RELEASE

Initiating Cue:
The SM has authorized you to perform a liquid waste release per 0-OP-061.11, WASTE DISPOSAL SYSTEM CONTROLLED RADIOLOGICAL LIQUID RELEASE, and the approved liquid release permit.

Time Critical Task: Yes/No

Validation Time: 15 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:

WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:

1. A liquid release permit has been approved for the "A" MT and the tank recirculation and sampling verification sheet has been assigned by the SM.
2. The appropriate procedure for performing a controlled liquid release has been obtained and checked against the OTSC index.
3. All release prerequisites have been satisfied.
4. R-18 is operable.
5. No waste monitor tanks are on recirculation.

INITIATING CUE:

The SM has authorized you to perform a liquid waste release per 0-OP-061.11, WASTE DISPOSAL SYSTEM CONTROLLED RADIOLOGICAL LIQUID RELEASE, and the approved liquid release permit.

TERMINATION CUE:

WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:

1. A liquid release permit has been approved and the tank recirculation and sampling verification sheet has been signed by the SM.
2. The appropriate procedure for performing a controlled liquid release has been obtained and checked against the OTSC index.
3. All release prerequisites have been satisfied.
4. R-18 is operable.
5. No waste monitor tanks are on recirculation.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	1. Verify receipt of an approved Liquid Release Permit and an Attachment 6 of 0-NCOP-003, Preparation of Liquid Release Permits, **AND** perform the following: a. Record the Liquid Release Permit Number and tank to be released on the QA Record Page. b. Obtain the appropriate subsection of this procedure for the tank to be released and record the subsection on the QA Record Page.	___ SAT ___ UNSAT
STANDARD:	1. Receipt verified of approved liquid release permit. 2. Receipt verified of Tank Recirculation & Sampling Sheet (Attachment 6 of 0-NCOP-003) 3. Permit number and tank to be released recorded on QA record page. 4. Appropriate subsection for tank to be released obtained and recorded on the QA record page.	

STEP 2 : √	3. Reset the Process Radiation Monitor R-18 High Alarm setpoint **AND** Warning Limit by performing the following a. Slide R-18 drawer forward to gain access to the thumbwheel switches. b. Position the High Alarm setpoint thumbwheel switches to the R-18 High Alarm specified on the Radioactive Release Permit. c. Position the Warning Limit thumbwheel switches to the R-18 Warning Limit specified on the Radioactive Release Permit. d. Close the R-18 drawer. e. Momentarily depress the HIGH ALARM pushbutton **AND** verify the digital display CPM indication equals the High Alarm setpoint on the Radioactive Release Permit. f. Momentarily depress the WARNING LIMIT pushbutton **AND** verify the digital display CPM indication equals the Warning Limit on the Radioactive Release Permit. g. Momentarily depress the SOURCE CHECK pushbutton **AND** verify the digital display CPM indication responds to the Source.	___ SAT ___ UNSAT
STANDARD:	1. R-18 drawer pulled out to access thumbwheel switches. 2. High alarm setpoint positioned to that specified on LRP. 3. Warning limit positioned to that specified on LRP. 4. R-18 drawer closed. 5. High alarm pushbutton depressed, cpm verified equal to that specified on LRP, then pushbutton released. CUE: R-18 cpm equal to high alarm setpoint value on RWP. 6. Warning limit pushbutton depressed, cpm verified equal to that specified on LRP, then pushbutton released. CUE: R-18 cpm equal to warning limit setpoint value on RWP. 7.Source check pushbutton depressed, cpm response to source verified, then pushbutton released. CUE: R-18 cpm increased as a result of source check. **NOTE: Standards 1, 2, 3, and 4 are critical to this step.**	

STEP 3 :	4. Verify that the number of Circulating Water Pumps are equal to or greater than the minimum specified in the release permit, **AND** record the total number is in service on the liquid release permit. (Refer to Precautions 4.4 and 4.5).	___ SAT ___ UNSAT
STANDARD:	1. Verifies running Circulating Water pumps equal to or greater than minimum specified on the Liquid Release Permit. 2. Records number of running Circulating Water pumps on LRP.	

STEP 4 :	5. Periodically monitor R-18 during the release	___ SAT ___ UNSAT
STANDARD:	Observes R-18 Countrate on drawer in control room	

STEP 5 :	6. Provide the Liquid Release Permit and appropriate procedure subsection (obtained in Substep 5.1.2.1.b) to the SNPO, AND instruct the SNPO to perform the liquid release.	___ SAT ___ UNSAT
STANDARD:	1. SNPO briefed by the RO on the release to be performed. 2. SNPO is given the procedure in-progress (0-OP-061.11), the approved Liquid Release Permit, and the signed Tank Recirculation & Sampling Verification Sheet. **CUE:** Respond as SNPO.	

STEP 6 :	7. **WHEN** notified by the SNPO that the liquid release is in progress, records R-18 reading and checks that warning limit has not been exceeded every 15 minutes.	___ SAT ___ UNSAT
STANDARD:	Records R-18 reading in appropriate section and monitors cpm to be less than warning limit. CUE: As SNPO, notify operator that liquid release is in progress. CUE: After first R-18 reading is entered, tell operator that you (SNPO) have completed the line-up, had the IV performed, verified that all Tech Spec required sampling was done, released the applicable tank, shut down the release, and flushed R-18 with service water.	

STEP 7 :	8. **WHEN** notified that the liquid release is completed, **THEN** obtain the completed procedure subsection from the SNPO.	___ SAT ___ UNSAT
STANDARD:	Obtains completed procedure subsection from the SNPO.	

STEP 8 : √	10. Reset the Process Radiation Monitor R-18 High Alarm setpoint by performing the following: a. Slide R-18 drawer forward to gain access to the thumbwheel switches. b. Position the High Alarm thumbwheel switches to the setting posted on the drawer by I&C Department, for High Alarm setpoint. c. Close the R-18 drawer. d. Momentarily depress the HIGH ALARM pushbutton **AND** verify the digital display CPM indication equals the High Alarm setpoint posted on the drawer by I&C Department.	____ SAT ____ UNSAT
STANDARD:	1. R-18 drawer pulled out to access thumbwheel switches. 2. High alarm setpoint positioned to that specified on drawer. 3. R-18 drawer closed. 4. High alarm pushbutton depressed, cpm verified equal to that specified on drawer, then pushbutton released. **STOP**	

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – e

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ __________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. A liquid release permit has been approved for the "A" MT and the tank recirculation and sampling verification sheet has been assigned by the SM.
2. The appropriate procedure for performing a controlled liquid release has been obtained and checked against the OTSC index.
3. All release prerequisites have been satisfied.
4. R-18 is operable.
5. No waste monitor tanks are on recirculation.

INITIATING CUE:

The SM has authorized you to perform a liquid waste release per 0-OP-061.11, WASTE DISPOSAL SYSTEM CONTROLLED RADIOLOGICAL LIQUID RELEASE, and the approved liquid release permit.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Respond to Excessive RCS Leakage	Job Performance Measure No:	Systems – f
K/A Reference:	EA1.04		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:	Simulator		
Simulated Performance		Actual Performance	Yes

Classroom ______ Simulator Yes Plant ______

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. 3-GOP-503, COLD SHUTDOWN TO HOT STANDBY, is in progress.
2. Unit 3 is in MODE 4 at 325 psig.
3. 3B and 3C RCPs are operating. RHR has just been secured and heatup may resume.
4. H.P. is in containment performing surveys.
5. The CNTMT SUMP HI LVL alarm (G-5/3) has just actuated.

Task Standard:
1. Maintain RCS inventory.

Required Materials:
1. 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE
2. 3-ONOP-041.7, SHUTDOWN LOCA [MODE 3 (LESS THAN 1000 PSIG) OR MODE 4]

General References:
1. 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE
2. 3-ONOP-041.7, SHUTDOWN LOCA [MODE 3 (LESS THAN 1000 PSIG) OR MODE 4]

Initiating Cue:
You are the RO. Respond to plant conditions.

Time Critical Task: Yes/No

Validation Time: 20 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. 3-GOP-503, COLD SHUTDOWN TO HOT STANDBY, is in progress.
2. Unit 3 is in MODE 4 at 325 psig.
3. 3B and 3C RCPs are operating. RHR has just been secured and heatup may resume.
4. H.P. is in containment performing surveys.
5. The CNTMT SUMP HI LVL alarm (G-5/3) has just actuated.

INITIATING CUE:
You are the RO. Respond to plant conditions.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:
1. Simulator operator reset to IC-14. Insert RCS leak by clicking on SCHEMA → REACTOR COOLANT SYSTEM → MAIN RCS HYDRAULICS → COLD LEG BREAK → TVHHCLB COLD LEG LOOP B LEAKAGE → enter selected value = 0.001 → INSERT. Let run until cnmt sump hi level annunciator G-5/3 alarms (approx 60 sec). Freeze simulator. Snap temporary IC if needed for repeat JPM runs.
2. 3-GOP-503, COLD SHUTDOWN TO HOT STANDBY, is in progress.
3. Unit 3 is in MODE 4 at 325 psig.
4. 3B and 3C RCPs are operating. RHR has just been secured and heatup may resume.
5. H.P. is in containment performing surveys.
6. The CNTMT SUMP HI LVL alarm (G-5/3) has just actuated.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Obtain 3-ONOP-041.3, EXCESSIVE REACTOR COOLANT SYSTEM LEAKAGE	____ SAT ____ UNSAT
STANDARD:	Obtains copy of 3-ONOP-041.3. **NOTE:** Applicant may initially refer to 3-ARP-097.CR for annunciator G-5/3 before initiating use of 3-ONOP-041.3. CUE: Another operator will perform 3-OSP-041.1	

STEP 2 :	1. Maintain RCS Inventory a. Maintain RCS Inventory as directed by the US b. Start additional charging pumps as necessary to maintain RCS Inventory c. **IF** charging flow is maximum, **THEN** isolate letdown flow	____ SAT ____ UNSAT
STANDARD:	1. Increases charging flow. a. Places 3B Chg. Pump. Speed controller in Manual & increases pump speed to maximum. 2. Starts both idle charging pumps and increases pump speed to maximum on all 3 charging pumps. a. Starts 3A Chg. Pump. Places 3C Chg. Pmp. Speed controller in Manual & increases pump speed to maximum. b. Starts 3C Chg. Pump. Places 3C Chg. Pmp. Speed controller in Manual & increases pump speed to maximum. 3. Determines PZR level still going down. Isolates Letdown flow by closing all 3 CV-3-200 A/B/C **OR** CV-3-204.	

STEP 3 : √	2. Check RCS Inventory Decreasing	___ SAT ___ UNSAT
STANDARD:	Recognizes decreasing level.	

STEP 4 :	3. Verify the following: a. Charging flow – MAXIMUM b. Letdown flow - ISOLATED	___ SAT ___ UNSAT
STANDARD:	1. Verifies maximum charging flow. 2. Verifies letdown flow isolated.	

STEP 5 :	4. Check Unit Operating in MODE 1 through 3 > 1000 psig with SI aligned for injection – **NO** **RNO** **Go to Step 6**	___ SAT ___ UNSAT
STANDARD:	Recognizes RNO and goes to Step 6.	

STEP 6 :	6. Check Unit operating MODE 3 < 1000 psig with SI blocked or MODE 4	___ SAT ___ UNSAT
STANDARD:	Recognizes these as the correct plant conditions.	

STEP 7 : √	7. Go to 3-ONOP-041.7, SHUTDOWN LOCA [MODE 3 (LESS THAN 1000 PSIG) OR MODE 4]	___ SAT ___ UNSAT
STANDARD:	Obtains procedure.	

3-ONOP-041.7, SHUTDOWN LOCA [MODE 3 (LESS THAN 1000 PSIG) OR MODE 4]

STEP 8 :	1. Monitors Foldout Page (All F.O. Page Steps NA). 2. Monitor Conditions to determine if RHR pumps should be stopped: a. Check the following: • PZR level – LESS THAN 12%[50%] **OR** • RCS subcooling based on core exit TCs – LESS THAN 30°F[210°F] b. If PRZ level <12% or subcooling < 30°F[210°F], stops RHR pumps and place them in PULL TO LOCK c. If PRZ level and subcooling adequate, goes to Step 2 per Step 1RNO.	____ SAT ____ UNSAT
STANDARD:	Places 3A and 3B RHR pump control switches in PULL TO LOCK if PZR level < 12[50]%.	

STEP 9 :	2. Isolate RCS letdown a. Excess letdown isolation valves - CLOSED • CV-3-387, Excess letdown isolation valve from cold leg to excess letdown HX • HCV-3-137, Excess letdown flow controller b. Normal letdown isolation valves - CLOSED • CV-3-200A, 45 gpm LTDN Isolation • CV-3-200B, 60 gpm LTDN Isolation • CV-3-200C, 60 gpm LTDN Isolation • LCV-3-460, High Pressure Letdown Isolation From Loop B c. RHR letdown Isolation Valves - CLOSED • HCV-3-142, RHR LTDN to CVCS	____ SAT ____ UNSAT
STANDARD:	Some or all of the above listed valves may have already been shut.	

STEP 10 :	3. Check if charging flow is adequate a. Verifies RCS Makeup Control Switch in STOP b. Verifies charging flow already maximized to maintain PZR level c. Check PZR level • GREATER THAN 12%[50%] • STABLE **OR** INCREASING d. Recognizes PRZ level still decreasing goes to Step 4 per Step 3 RNO.	____ SAT ____ UNSAT
STANDARD:	Correctly identifies PZR level still going down with maximum charging indicated on FI-3-122A.	

STEP 11 :	4. Dispatch personnel to locally restore power to locked out SI equipment a. Verifies following breakers closed: • 30622 for MOV-3-843B • 30621 for MOV-3-866B • 30605 for MOV-3-864B • 30615 for MOV-3-750 • 30616 for MOV-3-862B • 30625 for MOV-3-863B b. Verifies following breakers closed: • 30738 for MOV-3-843A • 30737 for MOV-3-869 • 30712 for MOV-3-864A • 30720 for MOV-3-862A • 30726 for MOV-3-863A • 30731 for MOV-3-751 • 30732 for MOV-3-866A c. Verifies the following breakers racked in • 3AA13 for 3A HHSI pump • 3AB12 for 3B HHSI pump • 4AA13 for 4A HHSI pump • 4AB12 for 4B HHSI pump	____ SAT ____ UNSAT
STANDARD:	Directs PO to verify cold leg recirc valve breakers closed on 3C MCC and SO to verify cold leg recirc valve breakers closed on 3B MCC. Operator verifies HHSI pump breakers racked in using VPB indication (breaker open light ON means breaker racked in).	

STEP 12 : √*	5. Evacuate non-essential personnel in containment a. Make announcement over PA to evacuate Unit 3 containment b. Sound containment evacuation alarm c. Repeat announcement over PA to evacuate Unit 3 containment	____ SAT ____ UNSAT
STANDARD:	Makes PA announcement to evacuate non-essential personnel from Unit 3 containment. Sounds containment evacuation alarm and then repeats PA announcement. * Only Steps a and b are critical to this step.	

STEP 13 : √	6. Actuate containment isolation phase A a. Manually actuate containment isolation phase A b. Containment isolation phase A valve white lights on VPB all bright	____ SAT ____ UNSAT
STANDARD:	Operator manually actuates containment isolation phase A using VPB pushbutton, then verifies associated white lights on VPB all bright.	

STEP 14 :	7. Monitor conditions to determine if RCPs should be tripped a. Check to see if any RCPs running b. If RCPs running, check for #1 seal $\Delta p < 200$ psid or #1 seal leakoff flow < 0.8 gpm c. If either condition above met, trip running RCPs **NOTE:** Tripping RCPs based on these criteria may be done at any time during this procedure based on foldout page item #3.	____ SAT ____ UNSAT
STANDARD:	Trips running RCPs if #1 seal $\Delta p < 200$ psid or #1 seal leakoff flow < 0.8 gpm. This action may be taken any time during the procedure since this step is duplicated in the 3-ONOP-041.7 foldout page.	

STEP 15 : √	8. Checks if one HHSIP should be started a. Checks for PZR level < 12[50]% or RCS CET subcooling < 30[210]°F b. If either condition above met, then align one train of SI by opening either MOV-3-843A or MOV-3-843B and then start one HHSI pump c. If SI aligned, verify HHSI flow on FI-3-943	___ SAT ___ UNSAT
STANDARD:	If PZR level < 12[50]% or RCS CET subcooling < 30[210]°F, then opens either MOV-3-843A or MOV-3-843B and then starts one HHSI pump. Once HHSI initiated, flow verified using FI-3-943 on VPB	
Terminating Cue:	**CUE:** Once HHSI flow established, evaluator may inform applicant that another operator will continue from here.	STOP

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – f

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. 3-GOP-503, COLD SHUTDOWN TO HOT STANDBY, is in progress.
2. Unit 3 is in MODE 4 at 325 psig.
3. 3B and 3C RCPs are operating. RHR has just been secured and heatup may resume.
4. H.P. is in containment performing surveys.
5. The CNTMT SUMP HI LVL alarm (G-5/3) has just actuated.

INITIATING CUE:

You are the RO. Respond to plant conditions.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Control Room Parallel Operation of 3A EDG With Grid	Job Performance Measure No:	Systems – Control Room g
K/A Reference:	064A4.07		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Simulator

Simulated Performance ______ Actual Performance Yes

Classroom ______ Simulator Yes Plant ______

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. The 3A Diesel Generator has just been started and speed was increased to 900 rpm in preparation for bringing it onto the 4KV Bus.
2. Procedure 3-OP-023 section 5.3 is complete through step 5.3.2.24.a and ready for you to begin at step 5.3.2.24.b.

Task Standard:
1. Properly Synchronize the 3A Diesel Generator to the 4KV Bus.
2. Load the 3A Diesel Generator to 2.3 MW without exceeding any limits.
3. Respond to EDG overload by tripping output breaker or emergency stopping the EDG within 1 minute of EDG load exceeding 3050 KW.

Required Materials:
3-OP-023, EMERGENCY DIESEL GENERATOR

General References:
3-OP-023, EMERGENCY DIESEL GENERATOR

Initiating Cue:
You are to complete the procedure beginning with Step 24.b. All preceding Steps, prerequisites, checks, and permissions have completed IAW all requirements.

Time Critical Task: Yes/No

Validation Time: 20 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. The 3A Diesel Generator has just been started and speed was increased to 900 rpm in preparation for bringing it onto the 4KV Bus.
2. Procedure 3-OP-023 section 5.3 is complete through step 5.3.2.24.a and ready for you to begin at step 5.3.2.24.b.

INITIATING CUE:
You are to complete the procedure beginning with Step 24.b. All preceding Steps, prerequisites, checks, and permissions have completed IAW all requirements.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:
1. The 3A Diesel Generator has just been started and speed has just been increased to 900 rpm in preparation for bringing it onto the 4KV Bus.

2. Simulator operator reset simulator to IC-1. Obtain copy of 3-OP-023 section 5.3 and perform steps 5.3.2.18 thru 5.3.2.24.a. This will start the EDG and leave it running at 900 rpm ready for synchronization by the candidate beginning with step 5.3.2.24.b. Freeze simulator. Snap temporary IC for use if needed for repeat runs of this JPM.

3. Enter the following to cause an uncontrolled increase in 3A EDG speed when load reaches 2300 kw. Click on Panel → A302 → Transformers & EDG 767 → A DIESEL SPD CHANGER → IMQ5GCRA EDG HYD/ELEC RAISE (SPEED) → enter condition Q50DGAKW GE 2300.0 then TRUE then INSERT.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Obtain copy of 3-OP-023, EMERGENCY DIESEL GENERATOR, procedure.	___ SAT ___ UNSAT
STANDARD:	Obtains copy of procedure.	

STEP 2 : √	Obtains T-handle switch, inserts in console sync switch for 3A EDG and places switch to ON.	___ SAT ___ UNSAT
STANDARD:	Places switch to ON.	

STEP 3 :	Verify the WHITE synchronizing lights are ON.	___ SAT ___ UNSAT
STANDARD:	Verifies lights are ON.	

STEP 4 :	Using the 3A Diesel Gen voltage regulator, adjust incoming to match running indicated voltage.	___ SAT ___ UNSAT
STANDARD:	Adjusts 3A EDG voltage regulator to properly match voltage.	

STEP 5 :	Using the 3A Diesel Gen speed changer, adjust engine speed so that the pointer on the synchroscope is rotating slowly in the FAST direction.	___ SAT ___ UNSAT
STANDARD:	Adjusts engine speed using 3A EDG speed changer until synchroscope pointer rotating slowly in the FAST direction.	

STEP 6 :	Using the 3A Diesel Gen volt regulator, adjust incoming voltage slightly higher than running voltage.	___ SAT ___ UNSAT
STANDARD:	Adjusts 3A EDG voltage regulator to properly adjust incoming voltage until incoming voltage slightly higher than running voltage.	

STEP 7 :	Using the 3A Diesel Gen kilovolts indicator and 3A 4KV Bus Kilovolts indicator, verify voltages are approximately equal between the 3A Diesel Generator output and the 3A 4KV Bus for all three phases.	___ SAT ___ UNSAT
STANDARD:	Verifies voltages for all three phases using the 3A EDG kilovolts indicator and 3A 4KV Bus Kilovolts indicator.	

STEP 8 :	Verify 3A Diesel Generator frequency is between 58.8 and 61.2 Hz on the 3A Diesel hertz indicator.	___ SAT ___ UNSAT
STANDARD:	Adjusts 3A EDG speed changer as needed until frequency between 58.8 and 61.2 Hz.	

STEP 9 : √	**WHEN** the Synchroscope pointer is at 12 o'clock position, **THEN** close the diesel generator breaker by placing the 3A EDG to 3A 4KV Bus 3AA20 switch to the CLOSE position (spring return to normal). 1. Verify the Diesel Generator Breaker 3AA20 has closed (Breaker GREEN light is OFF and RED light in ON).	___ SAT ___ UNSAT
STANDARD:	1. Closes breaker 3AA20 with Synchroscope pointer at 12 o'clock position. 2. Verifies breaker 3AA20 GREEN light is OFF and RED light is ON.	

STEP 10 :	Place the 3A EDG Sync to 3A 4KV Bus switch to OFF.	___ SAT ___ UNSAT
STANDARD:	Places the 3A EDG Sync to 3A 4KV Bus switch to OFF.	

STEP 11 : √	Turn the 3A Diesel Gen speed changer in the RAISE direction and slowly increase diesel generator load to approximately 1.0 MW (1000 KW) on 3A Diesel Megawatts indicator.	___ SAT ___ UNSAT
STANDARD:	Using the 3A Diesel Gen speed changer in the RAISE direction, slowly increases diesel generator load to approximately 1.0 MW.	

STEP 12 :	While monitoring the 3A Diesel Amps indicator, momentarily position the 3A Diesel Gen volt regulator to RAISE. (1) **IF** 3A Diesel amps increased, **THEN** perform the following: (a) Slowly LOWER the voltage until amps stop decreasing and start to increase (lead). (b) Slowly RAISE the voltage until 3A Diesel amps increase (slightly in lag). **OR** (2) **IF** 3A Diesel amps decreased, **THEN** slowly RAISE the voltage until 3A Diesel amps increase (slightly in lag).	___ SAT ___ UNSAT
STANDARD:	Makes appropriate voltage regulator adjustments to the 3A Diesel Gen volt regulator to place the generator reactive load in lag.	

STEP 13 :	Direct the operator at 3A Diesel Generator to inspect for leaks or abnormalities.	___ SAT ___ UNSAT
STANDARD:	Directs the field operator at 3A EDG to inspect for leaks or abnormalities.	

CUE:	Simulator operator respond as field operator at 3A EDG. Report no leaks or abnormalities on 3A EDG.	

STEP 14 : √	Turn the 3A Diesel Gen speed changer in the RAISE direction **AND** increase diesel generator load until it is between 2.3 and 2.5 MW (2300 – 2500 KW)	____ SAT ____ UNSAT
STANDARD:	Operator adjusts speed changer as needed to increase load to between 2.3 MW and 2.5 MW. **NOTE: When EDG load reaches 2300 kw, EDG governor failure will cause an uncontrolled increase in EDG load.**	

STEP 15 : √	Operator recognizes EDG overload event. Responds by tripping EDG output breaker or initiates EDG Emergency Stop.	____ SAT ____ UNSAT
STANDARD:	Trips EDG output breaker or depresses EDG Emergency Stop PB at the console within 1 minute of EDG load exceeding 3050 KW .	

Terminating Cue:	**Operator responds to EDG overload by tripping EDG output breaker or Emergency Stopping EDG.**	**STOP**

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – Control Room g

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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Response:

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. The 3A Diesel Generator has just been started and speed was increased to 900 rpm in preparation for bringing it onto the 4KV Bus.
2. Procedure 3-OP-023 section 5.3 is complete through step 5.3.2.24.a and ready for you to begin at step 5.3.2.24.b.

INITIATING CUE:

You are to complete the procedure beginning with Step 24.b. All preceding Steps, prerequisites, checks, and permissions have completed IAW all requirements.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Control Room Evacuation	Job Performance Measure No:	Systems – h
K/A Reference:	068AA1.26		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: Control Room - In Plant

Simulated Performance: Yes   Actual Performance:

Classroom: Simulator: Plant: Yes

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. Both Units are at 100% power.
2. A fire in the cable spreading room has compromised control room habitability.

Task Standard:
1. Perform immediate action steps from memory.
2. Obtain the appropriate set of prints.
3. Obtain one radio.
4. Obtain one copy of 0-ONOP-105, CONTROL ROOM EVACUATION.
5. Obtain one high voltage kit.
6. Obtain appropriate keys and 12 transfer switch handles.
7. Demonstrate how to place ASP switches to local.

Required Materials:
1. 0-ONOP-105, CONTROL ROOM EVACUATION

General References:
1. 0-ONOP-105, CONTROL ROOM EVACUATION

Initiating Cue:

You are the Unit 4 Reactor Operator. The Shift Manager has directed you to perform the actions of 0-ONOP-105, CONTROL ROOM EVACUATION, Attachment 4.

Time Critical Task: No

Validation Time: 20 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. Both Units are at 100% power.
2. A fire in the cable spreading room has compromised control room habitability.

INITIATING CUE:

You are the Unit 4 Reactor Operator. The Shift Manager has directed you to perform the actions of 0-ONOP-105, CONTROL ROOM EVACUATION, Attachment 4.

NOTE: This is a SIMULATE JPM. Manipulate no plant equipment during the performance of this task.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR :

Denote critical steps with a check mark

Start Time ________

STEP 1 : √	Trip Unit 4 Reactor prior to leaving the control room.	___ SAT ___ UNSAT
STANDARD:	1. Trip Unit 4 Reactor using reactor trip switch on console or Vertical Panel B prior to leaving the control room. Verifies green light indication for reactor trip breakers on console. NOTE: Verification of reactor trip indication is not critical.	

STEP 2 :	2. Perform as many of the following manual actions as possible from the control room: **Evaluator NOTE: All listed components (except the MSIV Bypass Valves) are marked with square yellow placards** a. Trip Unit 4 Main Turbine b. Close Unit 4 MSIVs and Bypass valves (NOTE - Bypass Valves De-energized) c. Trip Unit 4 Main Feedwater Pumps d. Trip B Standby S/G Feedwater Pump e. Verify 4B Charging Pump tripped f. Close both PORV block valves g. Trip Unit 4 Reactor Coolant Pumps h. Obtain the following: • Set of prints • Radio	____ SAT ____ UNSAT
STANDARD:	a. Depresses Unit 4 Turbine Trip PB on console. Verifies green light indication for turbine stop valves on VPA. b. Closes MSIVs using 3 CSs on console or PBs on VPB. Verifies green light indication for each above CSs on console. Verifies MSIV bypass valves have power removed on console. c. Takes 4A & 4B SGFP CSs on console to STOP. Verifies green light indication above CSs on console. d. Verifies green light indication for "B" SBSGFP on console. e. If 4B charging pump running, takes CS on console to STOP. Verifies green light indication above CS. f. Takes MOV-4-535 CS and MOV-4-536 CS to CLOSE. Verifies green light indication above CSs. g. Takes CSs for 4A, 4B, 4C RCPS to STOP. Verifies green light indication above CSs. Obtains set of prints. Obtains radio. NOTE: Standards 2.b, 2.e, 2.f, 2.g are critical. Verification of indications is not critical.	

STEP 3 :	3. Evacuate Control Room As Follows: a. Proceed to Turbine Deck Work Station b. Obtain the following: • One copy of 0-ONOP-105 • One high voltage kit	___ SAT ___ UNSAT
STANDARD:	1. Proceeds to Turbine Deck Work Station. 2. Obtains copy of 0-ONOP-105. 3. Obtains one high voltage kit.	

STEP 4 :	4. Proceed To Unit 4 ASP And Perform The Following: a. Open key box on side of ASP b. Using Alt Comm Key, open alternate shutdown communications headset box c. Obtain 12 transfer switch handles	___ SAT ___ UNSAT
STANDARD:	1. Proceeds to Unit 4 ASP. 2. Obtains 12 transfer switch handles.	

STEP 5 :	5. Perform The Following: a. Put on Alternate Shutdown Communication System headset b. Turn on DC lights	___ SAT ___ UNSAT
STANDARD:	1. Puts on headset. 2. Turns on DC lights.	

STEP 6 : √	6. Perform The Following At The Alternate Shutdown Panel a. Insert handles into the following ten (10) ASP yellow-bordered switches and place them to local 1. Pressurizer PORV Block Valve MOV-4-535 2. Pressurizer PORV, PCV-4-455C 3. U-4 AFW FCV's Control Transfer Switch 4. High Press L/D Isol Vlv from Loop B Cold Leg, LCV-4-460 5. Excess L/D Isol Vlv from Cold Leg to Excess L/D HX, CV-4-387 6. 4A Steam Supply to AFW pumps, MOV-3-1303 7. B AFW Pump T&T Valve, MOV-6459B 8. 4A Main Steam Isolation Valve, POV-4-2604 9. 4B Main Steam Isolation Valve, POV-4-2605 10. 4B Main Steam Isolation Valve, POV-4-2606 b. Insert handles into the following two (2) ASP yellow-bordered switches and place them to local 1. RCP Thermal Barrier CCW Outlet, MOV-4-626 2. RCP CCW Inlet, MOV-4-716B c. Verify the following valves open on the ASP: 1. RCP Thermal Barrier CCW Outlet, MOV-4-626 2. RCP CCW Inlet, MOV-4-716B	___ SAT ___ UNSAT
STANDARD:	1. Inserts Handle into each and turns handle to LOCAL position. Veriifes white light for each illuminated. NOTE: Step 6a, Items 1 through 7 are critical. Verification of white light indications is not critical. NOTE: Step 6b, Items 1 through 2 are critical. Verification of white light indications is not critical.	

STEP 7 :	7. Verify RCS Isolated by verifying the following valves closed: a. Pressurizer PORV Block Valve MOV-4-535 b. Pressurizer PORV, PCV-455C c. High Press L/D Isol Valve, LCV-4-460 d. Excess L/D Isol Valve, CV-4-387	___ SAT ___ UNSAT
STANDARD:	1. Observes green light illuminated and red light off for each of the listed valves.	**STOP**

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – h

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

____

Response:

____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. Both Units are at 100% power.
2. A fire in the cable spreading room has compromised control room habitability.

INITIATING CUE:

You are the Unit 4 Reactor Operator. The Shift Manager has directed you to perform the actions of 0-ONOP-105, CONTROL ROOM EVACUATION, Attachment 4.

NOTE: This is a SIMULATE JPM. Manipulate no plant equipment during the performance of this task.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Locally Isolate RCP Seal Cooling	Job Performance Measure No:	Systems – In Plant i
K/A Reference:	003A4.08		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: In Plant

Simulated Performance Yes   Actual Performance

Classroom   Simulator   Plant Yes

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. Seal injection to RCP's has been lost on Unit 3.
2. RCP thermal barrier cooling has been interrupted.

Task Standard:
1. Isolate Seal Injection flow to all three RCP's.
2. Isolate Thermal Barrier cooling flow.

Required Materials:
3-EOP-ECA-0.0, LOSS OF ALL AC POWER

General References:
3-EOP-ECA-0.0, LOSS OF ALL AC POWER

Initiating Cue:

You are the extra RO in the Control Room and have been directed to isolate Unit 3 Seal Injection and Thermal Barrier Cooling to the RCP's per 3-EOP-ECA-0.0, LOSS OF ALL AC POWER, Step 13.

Time Critical Task: No

Validation Time: 15 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. Seal injection to RCP's has been lost on Unit 3.
2. RCP thermal barrier cooling has been interrupted.

INITIATING CUE:

You are the extra RO in the Control Room and have been directed to isolate Unit 3 Seal Injection and Thermal Barrier Cooling to the RCP's per 3-EOP-ECA-0.0, LOSS OF ALL AC POWER, Step 13.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR AND BOOTH OPERATOR:
1. Seal injection to RCP's has been lost on Unit 3.
2. RCP thermal barrier cooling has been interrupted.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Obtain procedure.	___ SAT ___ UNSAT
STANDARD:	Obtains procedure.	

STEP 2 : √	13. Locally Close Valves To Isolate RCP Seals • 3-297A, RCP A Seal Injection Manual Isolation Valve • 3-297B, RCP B Seal Injection Manual Isolation Valve • 3-297C, RCP C Seal Injection Manual Isolation Valve	___ SAT ___ UNSAT
STANDARD:	1. Operator shuts 3-297A by turning handwheel in clockwise direction. 2. Operator shuts 3-297B by turning handwheel in clockwise direction. 3. Operator shuts 3-297C by turning handwheel in clockwise direction. **CUE: Provide feedback on indications based on operator actions.** NOTE: These valves isolate seal injection. NOTE: Valves can be operated in any order. NOTE: All valves located in Unit 3 Pipe & Valve Room.	

STEP 3 : √	Locally Close Valves To Isolate RCP Seals (continued) • MOV-3-381, RCP Seal Water Return And Excess Letdown Isolation Valve • MOV-3-626, RCP Seal Cooling Water Outlet Valve	___ SAT ___ UNSAT
STANDARD:	1. Operator shuts both valves. 2. Operator engages handwheel (lever pushed down) when operating each valve. 3. Operator manually closes each valve by turning handwheel in clockwise direction. **CUE: Provide feedback on indications based on operator actions.** NOTE: These valves isolate seal return.	

STEP 4 :	**STOP**	___ SAT ___ UNSAT
STANDARD:		

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – In Plant i

Examinee's Name: ______________________

Examiner's Name: ______________________

Date Performed: ______________________

Facility Evaluator: ______________________

Number of Attempts: ______________________

Time to Complete: ______________________

Question Documentation:

Question:

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____

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____

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Response:

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____

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Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. Seal injection to RCP's has been lost on Unit 3.
2. RCP thermal barrier cooling has been interrupted.

INITIATING CUE:

You are the extra RO in the Control Room and have been directed to isolate Unit 3 Seal Injection and Thermal Barrier Cooling to the RCP's per 3-EOP-ECA-0.0, LOSS OF ALL AC POWER, Step 13.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Transfer Vital Loads Between Inverters	Job Performance Measure No:	Systems – In Plant j
K/A Reference:	062A4.01		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:	In Plant		

Simulated Performance: Yes Actual Performance:

Classroom: Simulator: Plant: Yes

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. Two inverters in service, one in standby and one supplying load.
2. Both channels of ICCS are in service.
3. All initial conditions have been verified.

Task Standard:
1. Transfer load to the correct inverter.
2. Load less than 63 amps.
3. Normal output voltage 119 to 125 VAC.
4. Normal input voltage 125-138 VDC for inverter supplying load.

Required Materials:
1. 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM

General References:
1. 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM

Initiating Cue:
In preparation for inverter maintenance, you have been directed by the Unit 3 RO to transfer 3P07 bus load from the "3A" Inverter to the "AS" Spare Inverter.

Time Critical Task: No

Validation Time: 30 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. Two inverters in service, one in standby and one supplying load.
2. Both channels of ICCS are in service.
3. All initial conditions have been verified.

INITIATING CUE:
In preparation for inverter maintenance, you have been directed by the Unit 3 RO to transfer 3P07 bus load from the "3A" Inverter to the "AS" Spare Inverter.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR:
1. Two inverters in service, one in standby and one supplying load.
2. Both channels of ICCS are in service.
3. All initial conditions have been verified.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	1. Obtain copy of 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM. 2. Verifies procedure against OTSC index.	____ SAT ____ UNSAT
STANDARD:	Obtains copy of 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM. **CUE: Provide copy of procedure once operator has located copy.** **CUE: Inform operator that Sections 3.0 and 5.1 conditions have been met.**	

STEP 2 : √	7.1.2.1 Place the Alternate Source Transfer Switch to the position indicated in Table 3.	____ SAT ____ UNSAT
STANDARD:	1. Operator selects correct switch (3Y01B). 2. Correct switch positioned to proper position and locked [Backup to spare inverter (3Y04) AS].	

STEP 3 : √	7.1.2.2 Place the Sync Reference Selector Switch (SW-2) inside the AS inverter to NORMAL (DOWN) position.	____ SAT ____ UNSAT
STANDARD:	1. Operator selects AS inverter. 2. Switch SW-2 properly positioned to NORMAL (DOWN) position. **NOTE: Tell the operator to simulate going inside the inverter to position the switch. DO NOT allow the door to be opened.** **CUE: When properly identified, confirm SW-2 positioning.**	

STEP 4 :	7.1.2.3 Verify the following at the AS inverter: a. The IN SYNC light is ON. b. The ALT SOURCE AVAIL light is ON. c. The SYNC REFERENCE NORMAL light is ON.	____ SAT ____ UNSAT
STANDARD:	When properly identified, confirm indications.	

STEP 5 :	7.1.2.4 Place the Sync Reference Selector Switch (SW-2) inside the 3A inverter to the EXTERNAL (UP) position.	____ SAT ____ UNSAT
STANDARD:	1. Operator selects 3A inverter. 2. Switch (SW-2) properly positioned to EXTERNAL (UP) position. **NOTE: Tell the operator to simulate going inside the inverter to position the switch. DO NOT allow the door to be opened.** **CUE: When properly identified, confirm SW-2 positioning.**	

STEP 6 :	7.1.2.5 Verify the following at the 3A inverter: a. The IN SYNC light is ON. b. The SYNC REFERENCE EXTERNAL light is ON.	____ SAT ____ UNSAT
STANDARD:	1. "IN SYNC" light verified to be ON. 2. SYNC REFERENCE EXTERNAL light verified to be ON. **NOTE: Tell the operator the IN SYNC and SYNC REFERENCE EXTERNAL lights are on for "3A" inverter.**	

STEP 7 :	7.1.2.6 Using Table 4, determine which Instrument AC Selector Switch should be used **AND** record: __________.	____ SAT ____ UNSAT
STANDARD:	Operator identifies 3P07A as the Selector Switch that should be used. **CUE: When properly identified, confirm switch selection.**	

STEP 8 :	7.1.2.7 Perform the following steps at the 3P07A Instrument AC Selector Switch panel in the Cable Spreading Room: a. Verify that the Alternate Power Available light is ON.	___ SAT ___ UNSAT
STANDARD:	Operator verifies alternate power available light ON for 3P07A instrument AC selector switch panel. **CUE: When properly identified, tell operator light is ON.**	

STEP 9 :	b. Test the Sync Verification Light as follows: (1) Position the Sync Switch to SYNCH LAMP TEST. (2) Verify lamp comes ON.	___ SAT ___ UNSAT
STANDARD:	1. SYNC switch positioned to SYNCH LAMP TEST. 2. SYNC Verification Lamp verified ON. **CUE: When properly identified, confirm switch positioning.** **CUE: When properly identified, tell operator light is on.**	

STEP 10 :	c. Perform a synch check as follows: (1) Position the Sync Switch to SYNCH CHECK PUSH. (2) Depress and hold the Sync Switch. (3) Verify that the Sync Verification Light stays OFF.	___ SAT ___ UNSAT
STANDARD:	1. SYNC Switch positioned to SYNCH CHECK PUSH. 2. SYNC Switch depressed and held. 3. SYNC Switch released. **CUE: When correctly identified, confirm switch manipulations and tell operator light is OFF.**	

STEP 11 : √	d. Place the 3P07A Instrument AC Selector Switch to the position indicated in Table 4.	___ SAT ___ UNSAT
STANDARD:	1. Correct switch selected (3P07A). 2. Switch positioned to correct position (ALTERNATE). **CUE: When correctly identified, confirm switch positioning.**	

STEP 12 :	7.1.2.8 Verify the following at the AS SPARE inverter: a. Static Switch Output load less than 63 amps. b. Inverter Output Meter Voltage between 119 to 125 VAC. c. DC Input voltage 125 to 138 VDC. d. Verify the following off-normal lights are OFF: (1) DC VOLTAGE LOW – light OFF (2) LINE #1 TO GROUND – light OFF (3) LINE #2 TO GROUND – light OFF (4) ALTERNATE SOURCE SUPPLYING LOAD – light OFF (5) REVERSE POLARITY – light OFF (6) FAN FAILURE – light OFF (7) LOW AC VOLTAGE – light OFF (8) SYNC REFERENCE EXTERNAL – light OFF (9) OUT OF SYNC – light OFF (10) HIGH TEMPERATURE – light OFF (11) MANUAL BYPASS SW IN ALTERNATE SOURCE TO LOAD POSITION – light OFF	____ SAT ____ UNSAT
STANDARD:	1. LOAD <63 amps verified. 2. Output voltage verified between 119 and 125 VAC. 3. Input voltage verified between 125 -138 VDC. 4. The lights in the above list are verified off. **CUE: When correctly identified, confirm indications, and inform operator output voltage is 120 VAC.**	

STEP 13 :	7.1.2.9 Verify INVERTER TROUBLE alarm is clear in Control Room.	____ SAT ____ UNSAT
STANDARD:	1. Unit 3 RO was requested, and verified, that inverter trouble alarm is clear.	

STEP 14 :	7.1.2.10 **IF** desirable to de-energize the inverter which has just been removed from service, **THEN** perform Subsection 6.1 of this procedure.	____ SAT ____ UNSAT
STANDARD:	**CUE: When asked, as Unit 3 RO, tell operator it is not desirable to de-energize the 3A Inverter at this time.**	

STEP 15 :	7.1.2.11 Verify all log entries specified in Subsection 2.2 have been recorded.	____ SAT ____ UNSAT
STANDARD:	Operator verifies required log entries specified in Subsection 2.2 and notifies RO.	

STEP 16 :	7.1.2.12 Complete QA Records Page and makes notification.	____ SAT ____ UNSAT
STANDARD:	Operator completes QA Records Page and makes notification.	

STEP 17 :	**STOP**	____ SAT ____ UNSAT
STANDARD:	**CUE: Inform operator that this completes this JPM.**	

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – In Plant j

Examinee's Name: ______

Examiner's Name: ______

Date Performed: ______

Facility Evaluator: ______

Number of Attempts: ______

Time to Complete: ______

Question Documentation:

Question:

______

______

______

______

______

Response:

______

______

______

______

______

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ______ ______

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. Two inverters in service, one in standby and one supplying load.
2. Both channels of ICCS are in service.
3. All initial conditions have been verified.

INITIATING CUE:

In preparation for inverter maintenance, you have been directed by the Unit 3 RO to transfer 3P07 bus load from the "3A" Inverter to the "AS" Spare Inverter.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Place Unit 4 Post-Accident Hydrogen Monitor In Service	Job Performance Measure No:	Systems – In Plant k
K/A Reference:	028A4.03		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	

Method of testing: In Plant

Simulated Performance Yes Actual Performance

Classroom Simulator Plant Yes

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
1. Unit 4 has experienced a valid safety injection signal.
2. All applicable prerequisites satisfied.
3. Post accident monitoring systems are in normal standby alignments.

Task Standard:
1. Complete assignment within 30 minutes.
2. Alignment completed and reported to the RO.

Required Materials:
1. 4-OP-094, CONTAINMENT POST ACCIDENT MONITORING SYSTEMS
2. "A" Key.
3. Valve Operating Handle.

General References:
1. 4-OP-094, CONTAINMENT POST ACCIDENT MONITORING SYSTEMS

Initiating Cue:
The Unit 4 RO has directed you to place the Post Accident Hydrogen Monitor in service and perform initial alignment for PASS per 4-OP-094, Section 7.1, Steps 7.1.1 through 7.1.2.6.

Time Critical Task: Yes – 30 minutes Through JPM Step 5

Validation Time: 30 minutes

INSTRUCTIONS TO OPERATOR

READ TO OPERATOR:
WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE THE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, I WILL EXPLAIN THE INITIAL CONDITIONS, WHICH STEPS TO SIMULATE OR DISCUSS, AND PROVIDE INITIATING CUES. WHEN YOU COMPLETE THE TASK SUCCESSFULLY, THE OBJECTIVE FOR THIS JOB PERFORMANCE MEASURE WILL BE SATISFIED.

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:
1. Unit 4 has experienced a valid safety injection signal.
2. All applicable prerequisites satisfied.
3. Post accident monitoring systems are in normal standby alignments.

INITIATING CUE:

The Unit 4 RO has directed you to place the Post Accident Hydrogen Monitor in service and perform initial alignment for PASS per 4-OP-094, Section 7.1, Steps 7.1.1 through 7.1.2.6.

NOTE that this is a time critical task.

TERMINATION CUE:
WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK, HAND YOUR JPM BRIEFING SHEET BACK TO ME.

DO YOU HAVE ANY QUESTIONS?

YOU MAY BEGIN.

NOTES TO EVALUATOR:
1. Unit 4 has experienced a valid safety injection signal.
2. All applicable prerequisites satisfied.
3. Post accident monitoring systems are in normal standby alignments.

Denote critical steps with a check mark

Start Time ________

STEP 1 :	Obtain required materials. Verify procedure against OTSC index.	___ SAT ___ UNSAT
STANDARD:	1. Operator obtains copy of 4-OP-094. 2. Operator obtains "A" Key. 3. Operator obtains Valve Operating Handle. **CUE: Once procedure has been correctly identified and the need to verify procedure against the OTSC Index has been expressed, provide Operator with a copy of 4-OP-094 and state that the OTSC check is complete.** **CUE: Once the operator has identified the applicable Section in the procedure, inform him that all applicable prerequisites listed in Section 3.0 are satisfied.** **CUE: May also inform the Operator that Unit 4 has received a valid SI signal.** **NOTE: On-Shift operators carry "A" keys.**	

STEP 2 : √	1. Remove the floor caps **AND** open the following valves using the reach rods located in the Auxiliary Building [Near the junction of N-S & E-W Hallways]: a. Post Accident Sampling System Return Line Isolation Valve, PASS-4-008 b. H_2 Analyzer 4A Outlet Isol, PAHM-4-001A c. H_2 Analyzer 4B Outlet Isol, PAHM-4-001B d. PACV Vent and Sample System to PAHM Header Isolation Valve (RR), PAHM-4-002A e. PACV Vent and Sample System to PAHM Header Isolation Valve (RR), PAHM-4-002B	___ SAT ___ UNSAT
STANDARD:	Operator removes the floor caps **AND** open the following valves: 1. PASS-4-008 2. PAHM-4-001A 3. PAHM-4-001B 4. PAHM-4-002A 5. PAHM-4-002B **CUE: Confirm floor cap removal and valve manipulations.**	

	NOTE: Standard 1 is not critical to this step.	
STEP 3 : √	2. Unlock **AND** open PACVS Isol Vlv Penet 51, HV-4-3. (An "A" key is required for this lock.)	___ SAT ___ UNSAT
STANDARD:	1. PACVS Isol Vlv Penet 51, HV-4-3 unlocked and opened. **CUE: Confirm valve manipulations.**	
STEP 4 : √	3. Unlock **AND** open PACVS Isol Vlv Penet 16, HV-4-1. (An "A" key is required for this lock.)	___ SAT ___ UNSAT
STANDARD:	1. PACVS Isol Vlv Penet 16, HV-4-1 unlocked and opened. **CUE: Confirm valve manipulations.**	
STEP 5 : √	4. Request the Unit 4 RO to complete control room actions to place PAHMs in service.	___ SAT ___ UNSAT
STANDARD:	1. Operator requests RO to perform appropriate section (7.1.2.4) of 4-OP-094. **CUE: When asked to perform the associated procedure steps, state that all control room alignments have been completed. Direct operator to continue with the procedure.**	
STEP 6 : √	5. Remove floor cap **AND** close WHT Waste Transfer Pump Discharge to Rad Waste Building, MPAS-001 using the reach rod. **OR** Close Aux Bldg WHT valve to Radwaste Bldg WHT, 1731.	___ SAT ___ UNSAT
STANDARD:	1. If MPAS-001 chosen, Operator removes floor cap. 2. Operator closes MPAS-001 **OR** 1731. **CUE: Confirm floor cap removal and valve manipulations.**	

STEP 7 : √	6. Perform the following: a. Unlock and open Isol Vlv from WHT Pp Back, MPAS-4-004 (An "A" key is required). b. Close Isol Vlv MPAS to Purge Air Rtn, MPAS-4-005.	___ SAT ___ UNSAT
STANDARD:	1. MPAS-4-004 unlocked and opened. 2. MPAS-4-005 closed. **CUE: Confirm valve manipulations.**	

STEP 8 :	**STOP**	___ SAT ___ UNSAT
STANDARD:	Inform operator that someone else will continue with the procedure.	

Stop Time ________

Verification of Completion

Job Performance Measure No. Systems – In Plant k

Examinee's Name: ____________________

Examiner's Name: ____________________

Date Performed: ____________________

Facility Evaluator: ____________________

Number of Attempts: ____________________

Time to Complete: ____________________

Question Documentation:

Question:

____

Response:

____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: ____________________ ____________

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. Unit 4 has experienced a valid safety injection signal.
2. All applicable prerequisites satisfied.
3. Post accident monitoring systems are in normal standby alignments.

INITIATING CUE:

The Unit 4 RO has directed you to place the Post Accident Hydrogen Monitor in service and perform initial alignment for PASS per 4-OP-094, Section 7.1, Steps 7.1.1 through 7.1.2.6.

NOTE that this is a time critical task.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.